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QUARTERLY JOURNAL
OF
PRACTICAL MEDICINE AND SURGERY

EDITED BY
JOHN FORBES M.D. F.R.S.
AND
JOHN CONOLLY M.D.
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THE
BRITISH AND FOREIGN
MEDICAL REVIEW,

FOR JANUARY, 1837.

PART FIRST.

Analytical and Critical Reviews.

ART. I.

1. *A Further Inquiry concerning Constitutional Irritation and the Pathology of the Nervous System.* By BENJAMIN TRAVERS, F.R.S., Senior Surgeon to St. Thomas's Hospital, &c.—London, 1835. (Part II. *On the Pathology of the Nervous System.*)
2. *Outlines of Human Pathology.* By HERBERT MAYO, F.R.S., Professor of Anatomy and Physiology, and Pathological Anatomy, in King's College, London; Surgeon to the Middlesex Hospital.—London, 1836. 8vo. pp. 595. (Chaps. V. VI. and VII. *Of the Nerves, the Spinal Cord, and the Enkephalon.*)
3. *An Essay on the Laryngismus Stridulus, &c.; to which are appended, Illustrations of the General Principles of the Pathology of Nerves, and of the Functions and Diseases of the Par Vagum and its principal Branches.* By HUGH LEY, M.D., Member of the Royal College of Physicians of London, Physician to the Westminster General Lying-in Hospital, &c.—London, 1836. 8vo. pp. 480. (APPENDIX: *On the Pathology of the Nerves.*)
4. *Pathological and Practical Researches on the Diseases of the Brain and the Spinal Cord.* By JOHN ABERCROMBIE, M.D., Fellow of the Royal College of Physicians of Edinburgh, &c., and First Physician to his Majesty in Scotland. *Third Edition, enlarged.*—Edinburgh, 1835. 8vo.
5. *Lectures on the Nervous System and its Diseases.* By MARSHALL HALL, M.D. F.R.S. L. and E.—London, 1836. 8vo. pp. 171.
6. *Medico-Chirurgical Transactions; published by the Royal Medical and Chirurgical Society of London.* Vol. XIX.—London, 1835. (1. *On Serous Effusions from the Membranes and into the Ventricles of the Brain, and its Connexion with Apoplexy and other Diseases of the Brain;* 2. *On Hypertrophy and Atrophy of the Brain;* 3. *On the Cure of Ramollissement of the Brain.* By J. SIMS, M.D. &c.)
7. *Isis Revelata: an Inquiry into the Origin, Progress, and present State of Animal Magnetism.* By J. C. COLQUHOUN, Esq., Advocate, F.R.S. E.—Edinburgh, 1836. Two vols. 8vo. pp. 395, 416.

It was naturally to be expected that the important discoveries which have been made of late years in the physiology of the

nervous system,—the experimental demonstration of the principle that its different parts, nay, even in many cases the different component fibrils of a single nerve, or parts of a single fibril, possess perfectly different endowments,—and the determination, in many instances, of the specific functions of these parts,—should give a new stimulus to the corresponding department of pathology, and occasion various attempts to give precision and accuracy to that important branch of medical science: and the works, of which the titles are prefixed, appear to us the most important of those which have been composed with this view, or had this tendency, of late years in our own country.

In endeavouring to give our readers some account of these works, and afterwards of one or two others, we shall arrange the most original portions of the information which they contain, as well as we can, according to their bearing on the elucidation of the following general questions:

1. How far is the nervous system concerned in producing or maintaining the diseased actions of the organs of *organic* life, or those diseased states in which the organic functions appear chiefly in fault?

2. What is the exact state of our knowledge as to the pathology of the Nerves; i.e. as to those diseased states of the *animal* functions which originate and are chiefly seated in the nerves?

3. What is the state of our knowledge as to the pathology, similarly defined, of the spinal cord and medulla oblongata?

4. What is the state of our knowledge as to the pathology of the brain or parts of the nervous system superior to the medulla oblongata?

- I. The first of these enquiries involves, of course, the fundamental question in physiology, whether the nervous system is directly and essentially concerned in maintaining the *organic* life of animals, (i.e. those functions of animals which go on without the intervention of sensation, or of any other mental act;) or whether the organic life is truly *dependent* on the nervous system only in so far as it is dependent, in the adult state, on sensation and instinctive action, and therefore on a portion of those strictly animal functions which all admit to be, in the more perfect animals, connected with the nervous system exclusively.

Mr. Travers is the only one of the authors before us who gives a decided opinion on this fundamental point; and he thinks it necessary to make a sort of apology for his adherence to the now somewhat unfashionable doctrine of the necessary intervention of an influence derived from the nervous matter in every act even of organic life. We cannot observe, however, that he has stated any new fact in favour of the opinion which he holds in common with Cullen and others of the last age on the subject; and his statement of the reasons which induce many—we may say most—of the physiologists of the present day to reject that doctrine, appears to us decidedly imperfect and inaccurate.

Mr. Travers, it will be observed, not only maintains that some change in nervous matter is an essential element in every vital action, but adheres to the old non-specific doctrine of a nervous influence or energy, seated in the brain and ganglia, conducted along the nerves, and vivifying every part to which it is supplied. "The brain and ganglia," he says, "are organs furnishing a material impalpable to our observation, of which the fibrous structure we call nerves are conductors." Again, "If the brain is a secreting organ, its subservience to the circulation must be that of all such organs; its working or failing, the healthy or vitiated condition of its product, must depend on the sufficiency and regularity of its nourishment by the blood, as much as that of the liver; and the action of the heart as a muscle can only be maintained by a supply of that nervous element which contributes its sensitive and motive power derived directly or indirectly from the same source." "The actions of the respiratory, circulatory, secretory, and excretory organs, the temperature, the tone of the mind and of the muscles, are *all immediately depending* on the condition of the nervous system." (P. 258-9, 260.) Again, in his final summary of conclusions, he says, "The impregnation of the blood with the nervous principle I believe to be as essential to the maintenance of life as its impregnation with the oxygen of the atmosphere, whether we regard nourishment, the production and maintenance of animal temperature, or the diseases incidental to its morbid conditions." "The mechanical contrivance of the blood's distribution is subordinate to its due preparation to nourish and excite the nervous organ; and *through this indispensable medium* all the organs of which the body is composed." He adds, somewhat dogmatically, "I do not separate, in my view of the subject, the motive power of muscles from the nervous agent. It solves no difficulty, but rather creates one, to imagine an independent motion, by whatever term designated, resident in any structure. The reaction of the nervo-muscular solid upon the innervated blood, or that which is duly prepared by the nervous agent, supersedes the *unphilosophical hypothesis* of an independent motivity of tissue." (P. 424-5.)

Now, with all due respect for Mr. Travers, we think we shall command the assent of most of our readers when we assert that Haller's doctrine of irritability, which he here attacks, is both more philosophical and more distinctly intelligible than that modification of the doctrine of nervous influence or energy which he would substitute for it. That muscles in the living body, duly supplied with arterial blood, contract in a peculiar manner on the application of stimuli, is a *fact*. When we attribute to them the vital property of irritability, we do no more than assert that fact; and when we lay down the laws regulating that property, we do no more than state the different conditions and modifications under which that general fact has been observed. That one of the con-

ditions essential to the exercise of this property of irritability is an influx of an imperceptible nervous influence from the brain or the ganglia, or of "innervated blood," or any preliminary change in the nervous system, is an *opinion* or hypothesis as to the cause of that property of irritability. The hypothesis may be true or may be false; but, until it is *proved* to be true, we maintain that it is strictly philosophical, and in accordance with the practice of philosophers in all other sciences, to speak of the property of irritability as belonging to that texture which is *seen* to exhibit it; to regard its existence then as the ultimate fact hitherto *known* on the subject, and then to consider carefully any attempt that may be made to resolve it into a more general fact, or explain it by means of ascertained properties of any other texture. In the mean time, as it appears to us equally easy to conceive the power of contraction to reside in a living muscle, as to be given it by its nerve, we may reverse Mr. Travers's position, and say that it solves no difficulty, but rather creates one, to suppose that the contractile power of muscles is derived from nerves.

According to this, which we maintain to be the only philosophical mode of procedure, it is incumbent on those who maintain that irritability is the "reaction of the nervo-muscular solid on the innervated blood," to *prove* that some such intervention of the nervous system is essential to its manifestation; and for such proof we look in vain, either in the work of Mr. Travers or of other more strictly physiological writers. That the contractions of muscles in obedience to the will or to the sensations of the animal are effected through certain of their nerves, is indeed certain; but we speak here of those contractions (in whatever muscles they may be seen,) which are neither excited by volition, nor preceded by sensation, nor attended with consciousness, but which nevertheless perfectly exemplify the property of irritability, and, in the case of the strictly involuntary muscles, are the sole mode of its exercise in the healthy state. Mr. Travers alleges that "it is no real refutation of his statement" (ascribing them to the 'nervous agent,') "to cite the examples of a continued or a renewed action of the heart detached from the body, by aid of external agents, the nature of which has some affinity to that of the nervous agent. If it were independent of the nervous supply, why is there so brief a term to the duration of this action?" But the question here put is easily answered; and Mr. Travers must surely be aware that the fact here stated is not that on which the opponents of the doctrine of a nervous influence supplying irritability to the muscles take their stand. When the heart or any other muscle is detached from the body, it loses at once its *real* perceptible supply of arterial blood, and its *supposed* imperceptible supply of nervous influence. Here an *experimentum crucis* presents itself. If the term to the duration of the action is brief only because the influence, of which the *nerves* are conductors, is cut off, it should be equally brief, although the muscle

remain in the living body, if all its nerves are cut, or the sources of the nervous supply removed. But the reverse is the fact. The heart continues its actions unchanged, although its nerves be cut, although the ganglia whence these nerves come be destroyed; and, if artificial respiration be employed as a substitute for the natural, or if the condition of the animal be such that natural respiration is not essential to the degree of vitality which it enjoys, it continues its actions notwithstanding that both the brain and spinal cord are cut out of the body or *gradually* destroyed, for many hours together, and until the oxygenation of the blood supplying it has obviously become very much impaired. These points have been ascertained by Dr. W. Philip, Dr. M. Hall, and others. What is still more decisive, a muscle which has been stimulated by galvanism until its irritability has appeared to be exhausted, gradually recovers that irritability, and becomes as susceptible of the stimulus as previously, notwithstanding that all its nerves have been divided, if it be merely supplied with arterial blood and its organization maintained.* It is not, therefore, the *brief duration* of the irritability of a muscle cut out of the body, but it is the *indefinite duration* of the irritability of a muscle of which all the nerves have been cut, *so long as it lies in the living body, and receives its usual supply of arterial blood*, which, in our judgment, forbids us to entertain an idea of that irritability being supplied to it from the brain and ganglia, and conducted through its nerves. Mr. Travers indeed may say that, in this case, it has a supply of "innervated blood;" but what proof has he of this? And if he has no proof, who is it that proposes an "unphilosophical hypothesis?"

But, it may be said, injuries confined to the nervous system suddenly affect, or even irretrievably destroy, the functions of the organic life; and this implies an immediate dependence of these functions on the nervous system. The fact is true, and is of great pathological importance; but the physiological inference is more than it warrants. Here, again, the most important physiological fact is the effect of the section of nerves. If the *sudden* suppression of the heart's action, effected, as in Legallois's experiments, by crushing the spinal cord, or in Dr. Wilson Philip's, by crushing the brain, had depended merely on stopping a nervous influence passing from these organs to the heart, it never could have happened that the heart's actions, under the artificial respiration, would go on with unaltered force for hours together, after the brain has been removed from the body, as in the experiments of Fontana, Cruikshank, Brodie, and many others; or after both brain and spinal cord have been removed from the body, or gradually but completely destroyed, as in the various experiments of Flourens, Wilson Philip, and Marshall Hall. On the supposition of the nervous energy being essential to vital action, the one mode of

* See Experiments by Dr. J. Reid, in the Transactions of the British Association, vol. iii.

injury should have been as quickly fatal to the heart's action as the other. These facts clearly prove that, although a part of the nervous system be not essential to an act of organic life, yet a violent injury of that part may be fatal to that portion of the organic life; and therefore that we cannot trust to the effect of violent injuries, as indicating what is the real state of dependence of parts on each other in the natural and healthy state of the living body.

Again, it may be said that, although no influence or energy is transmitted through the nerves to the muscles, to enable them to contract, yet the nerves of muscles themselves (apart both from brain and ganglia,) are necessary intermediate links in the process by which these muscles are excited; that all stimuli act first upon them, and through them on the muscular fibres. This is a very different doctrine from that of the secretion of the nervous power in the brain or in the ganglia, and its transmission through the nerves to vivify the muscles; and it is maintained by higher authority. This was the doctrine as to the connexion of nerves with involuntary muscular motion, maintained in the last age by Whytt, and in the present by Cuvier and Tiedemann. We can give no *proof* that it is a false doctrine, but we think it quite clear that it is an hypothetical doctrine; and, until some clear evidence of the intervention of a nervous change preliminary to the muscular contraction is adduced, we hold it to be perfectly fair and strictly philosophical to decline saying more in regard to it than "*affirmantibus incumbit probatio.*"

We may, however, further remind the advocates even of this form of the doctrine of the dependence of irritability on nerves, of two known facts which are not easily reconciled with it. If all stimuli acted on muscles only by first impressing the nerves which enter them, we might expect to find, 1, that all stimuli which excite muscles when applied to their own fibres would excite them also if applied to the nerve, or to certain of the nerves entering these muscles; and, 2, that all muscles would have nerves, the stimulation of which, in one way or other, would be effectual in exciting the muscles: but neither of these expectations is fulfilled by observation of nature. Although muscular fibres are excited both by mechanical and chemical stimuli applied to themselves, it is the former class of stimuli only, according to the observation of Dr. Wilson Philip, which are effectual even on the muscles of voluntary motion, if applied *exclusively* to their nerves.* And, although the heart is at least as irritable to stimuli applied to itself as any other muscle, we need hardly say that the very general result of the experiments of physiologists is, the absolute inefficiency on the heart's actions of stimuli confined to the nerves, or the nervous ganglia from which it is supplied.

If, therefore, we confine our inferences on this subject to the

* On Sleep and Death.

expression of facts which are susceptible of demonstration, (which, we humbly apprehend, is the only sure way of avoiding unphilosophical hypotheses,) we shall assert that muscles are irritable, and that the irritability of muscles is capable of being excited in many instances, and variously affected in other, perhaps in all instances, in the living body, by causes acting on certain parts of the nervous system; but we shall reject the doctrine of a nervous matter secreted in the brain or in the ganglia, and passing down the nerves, to give this irritability to the muscles; and we shall suspend our belief as to the alleged necessity of any nervous change uniformly preceding muscular contraction, until we have more decisive facts to determine that question.

In regard to the other great division of the functions of organic life, the vital actions of nutrition, secretion, and absorption, although the question as to their dependence on a nervous influence does not stand exactly on the same footing, yet, if we follow the same rule of extending our inferences from the facts known no further than these facts necessarily warrant, we shall find it equally incumbent on us to set aside that doctrine of a nervous influence essential to nutrition or secretion, transmitted through the nerves to the part where these changes take place.

It is true that these functions are more powerfully affected, in various instances, by section of nerves, than the function of involuntary motion is; but, when we attempt to infer that they *depend* on an influence communicated along the nerves, we are immediately met by the following objections: 1. It is not from the section of all nerves that the decided effects on nutrition and secretion of which we speak result. The sensitive parts of the 5th and of the 8th are those from the section of which these effects (viz. on the eye, the lungs, and the stomach,) have been chiefly observed; and, even in the case of these nerves, it is only certain of the textures supplied by them which suffer from their section; chiefly the mucous membranes, hardly at all the serous membranes, or the skin or the muscular texture, which have their nerves from the same source. 2. Even in the case, of which much has been said, of the section of the par vagum suspending the functions of the stomach, the result of the experiment is not uniform; for, in the experiments of Leuret and Lassaigne on the horse, although portions of the par vagum on each side of the neck were cut out of the body, such a secretion of gastric juice nevertheless took place as was found to be effectual for the formation of chyme and of chyle from food taken after the section; and a positive result in such a case is, of course, of more weight than many negative results. And further, as in Dr. Wilson Philip's well-known experiments, the secretion of the stomach, when suspended by cutting the 8th pair of nerves, was restored by galvanism, unless we are prepared to maintain that the nervous influence essential to secretion is identical with galvanism, (a supposition which involves many difficulties, if not actual absurdities,) we must

admit that no nervous influence transmitted along the nerves can be essentially concerned even in this secretion. 3. The effect produced on the nutrition and secretion, even of the parts most easily affected in this way, by section of their nerves, is not simple suppression, probably, in any case. In the case of the mucous membrane of the bronchi and lungs, it is always an *increase* of the quantity, attended no doubt with a change in the quality, of the secretion; and after the section both of the 5th and 8th nerves, as also in other cases where sentient nerves have been palsied, the ultimate result is not simple death of the part, but *inflammation*, the formation of various inflammatory products; and, if death ensues, it is death preceded and caused, in the usual way, by inflammatory action.* Such a *series of changes*, therefore, ensues in these secreting parts from the section of their nerves, as was observed by Bichat in experiments on the nerves of the testis, the only secreting organ, as he thought, which could be completely isolated from the larger masses of the nervous system by cutting its nerves. After the section of these nerves, he states that he could not observe that the secretion of semen went on; but the reason of its not going on he thought equally conclusive as if it had, against the dependence of secretion on nervous influence, for the testicle inflamed and *suppurated*—i. e. a *morbid secretion* could be established and maintained, notwithstanding that this supposed influence was removed; and, if so, the formation of a new product out of the blood, which is the essence of nutrition and secretion, must be within the ordinary operations of nature, independently of such influence.†

Again, the case repeatedly observed of the fœtus coming to the full size, with the usual variety of textures in its composition, without either brain or spinal cord, has always appeared to us a natural experiment, conclusive as to the principle that nutrition and secretion cannot be dependent on an influence generated in these organs, and transmitted along the nerves. It is said, indeed, by Mr. Travers and others, that in this case the ganglia, likewise supposed to be sources of nervous influence, exist in the body: but, without adverting to the cases on record, where these would seem to have been carefully looked for, and not detected,‡ we request attention to this fact. If the ganglia are the source of the nervous influence by which nutrition is effected, and of the effects produced on glands and on mucous membranes by section of nerves, are owing to the interruption of that nervous influence, then, if the ganglia and ganglionic nerves are left untouched, no such effects should result from injury of the brain or spinal cord. But it is well known that disorganization of a very small portion

* This is not duly considered by Dr. Marshall Hall, who says that when the 5th nerve within the cranium is compressed or destroyed, "the eye ceases to be nourished, and becomes destroyed." (*Lect. &c.*, p. 31.)

† See *Anat. Gen.*, t. iv. p. 604.

‡ See *Elber De Acephalis*, pp. 31, 35, 45.

of the spinal cord, palsyng the lower limbs, has often led to alteration of the brain, and to inflammation and sloughing of the mucous membrane of the bladder, notwithstanding that all the ganglia and ganglionic nerves were untouched.* This we take to be clear proof that secretion and nutrition (just as was stated in regard to involuntary motion,) may be grievously injured by injury of parts of the nervous system, which are nevertheless unconcerned in the ordinary exercise of those functions.

On these grounds, we maintain with confidence that the inference attempted to be drawn from the effects of injury of *nerves*, as to the dependence of nutrition and secretion on an influence transmitted through them, is equally unsupported as that which was attempted to be drawn by Le Gallois from injury of the *spinal cord*, as to the dependence of the heart's action on an influence derived from thence.

The notion of a vivifying "nervous influence," like the ideal theory of metaphysicians, has become so interwoven with the speculations of some physiologists in this country, that we can hardly expect to see it confined within its proper limits in the present generation. But whenever this phrase is employed in reference to acts of organic life, its vagueness should be borne in mind; when it is stated, for example, by Mr. Mayo, that "*parts from which the nervous influence is withheld* are more disposed to inflame, and suppurate, and slough, than unhealthy parts;" we think it obvious, either that an "unphilosophical hypothesis" is proposed, or else that a very objectionable because theoretical expression is employed to denote what is simply and precisely expressed by saying that parts, the nerves of which are injured, and which are thereby rendered insensible, are so disposed to inflammation.

That the doctrine of a nervous influence essentially concerned in the organic life of animals, is *truly hypothetical*, and not adequately supported by observations confined to the effect of injuries of the nervous system, will perhaps appear more clearly, if we contrast it with another doctrine, allowed to be partly hypothetical, but proposed with some confidence as at least equally consistent with the facts, and much simpler and more satisfactory to the mind that contemplates it, viz. that the whole organic life of animals—i. e. every thing which goes on in them without the intervention of any sensation or other mental act,—may go on without the intervention of the nervous system, and stands in no relation of *dependence* to any changes in nervous matter; just as the corresponding functions of circulation, nutrition, secretion, absorption, go on in equal perfection in the lowest class of animals, where no nerves are detected, and in the whole vegetable kingdom, where there is no plausible reason for supposing that nerves exist; that the nervous system lives and grows within an animal, as a parasitic plant does in a

* See T. Stanley, in *Med.-Chir. Transactions*, vol. xviii.

vegetable; that with its life and growth certain sensations and mental acts, varying in the different classes of animals, are connected by nature in a manner altogether inscrutable to man; that the objects of the existence of animals require that *these mental acts should exert a powerful controlling influence* over all the textures and organs composing an animal; and that this influence is exerted by means of certain vital properties, with which the different parts of the nervous system are endowed, and that the effect of physical injury or disease, in many cases, is, *imitating the effect of the sensations and other mental acts*, to excite these endowments of the nervous system into action, and thereby to produce changes more or less exactly similar to those which, in the perfectly natural state, those sensations, voluntary efforts, or other mental acts are capable of producing.

That this statement of the office of the nervous system in the animal economy is the truth, we may assert without the slightest hypothetical assumption. That it is the whole truth, we admit to be still doubtful; but that anything more than this has ever been proved to be the truth, we think ourselves entitled to deny.

If our readers are as strongly impressed as we are with the importance of a right understanding of this preliminary question to the future progress of physiology, they will not think the time misspent which is directed to the attempt to adjust it. But we must now admit, that the judgment we form upon it is of less *pathological* importance than might at first be supposed; for all physiologists, even those who most strenuously oppose the doctrine of a *vivifying influence* necessary to the performance of the organic functions of the body, flowing from the nervous system,—admit that a controlling power over all these functions is possessed by some portion or other of nervous matter; i. e. that certain changes which take place in that part of the living body affect, in various ways, all these functions, and therefore that all external agents which are found to influence the organic functions *may* produce their effects through the intervention of the nervous system.

The reality of this *controlling influence* of changes in the nervous system is most clearly indicated, and the mode of its operation to a certain degree illustrated, by the effects of violent injuries of different portions of the nervous matter. The effects of such injuries on the actions of the heart, and on the circulation through the larger vessels, is best illustrated by the experiments of Le Gallois and of Dr. Wilson Philip taken together; and the most important general result of them is, the inefficacy, on the larger organs of the circulation, of any injuries inflicted on *small* portions of the nervous matter, in any part of the system; and, again, the powerful exciting or depressing influence exerted on the actions of the heart by injuries which extend at once to *any considerable portion* of the brain or spinal cord; those which primarily affect

the cervical portion of the cord appearing to be, *cæteris paribus*, the most powerful, but by no means the sole causes of this kind which produce this effect. The application of this fact in physiology to the case in pathology of concussion (of the spinal cord, as it ought to be termed, rather than of the brain,) as distinguished from compression of the brain, requires no illustration. Nor does it appear unreasonable to deduce from this leading fact two important inferences: 1. That a great part of the use of the very complex system of the ganglionic nerves supplying the heart is to combine and concentrate upon it the influence of causes which act over large portions, or throughout the whole extent, of the cerebro-spinal axis; and, 2. That all causes which, although apparently applied to or originating in other parts of the system, suddenly and powerfully excite or depress the heart's action, if not carried to it by the blood, must in all probability affect it only by first affecting a great part or the whole length of the cerebro-spinal axis,—i. e. the origins of the sympathetic nerve. Thus we acquire the knowledge that all the exciting causes of syncope, all intense sensations and overpowering mental emotions,—all such injuries or rapid changes as, although apparently confined to individual and extreme parts of the body, affect the system in the way of a concussion or shock,—are naturally attended by changes in the nervous system of this extensive character, and affect the circulation of the blood by reason of this peculiarity. Many of the causes of sudden or violent death illustrate this point; and it is perhaps still better illustrated by a class of cases of apoplexy, first distinguished, we believe, by Dr. Abercrombie, in which there is sudden sinking of the circulation, from which the patient rallies, followed by uniformly fatal coma, and dependent on equally uniform extensive extravasation of blood. (See *Path. Researches*, &c. Part II. sect. ii.)

But an influence, equally resulting from changes in the nervous system, and probably of greater pathological importance, is illustrated by some of the experiments on injuries of the brain and spinal cord, particularly of Le Gallois, Flourens, and Chossat, in which it clearly appeared that, even when injuries of these larger masses of the nervous system failed to affect the heart's action, they always took effect on the flow of blood in the *capillary vessels*, and might often be so managed as to influence especially or wholly suspend the circulation, and all the subordinate vital actions, in those organs only which had their nerves from the injured portions of the cerebro-spinal axis.*

“Dans tous les cas,” says Flourens, “la destruction complète du système nerveux affaiblit tellement l'ensemble de la circulation, que quelque tems que la circulation vasculaire survive encore, la

* See Le Gallois' Experiments, &c., p. 120, 140; and Flourens' Recherches Exp., &c., p. 196.

circulation capillaire souscutanée est toujours presque instantanément éteinte.” Again: “Lorsqu’une région déterminée du système nerveux est seule détruite, c’est toujours dans les seules parties correspondantes à cette région que la circulation se montre surtout affaiblie.” As it is generally allowed that most diseases originate in the capillary vessels, and only secondarily affect the heart, the influence which these facts illustrate is probably more nearly akin to that which the nervous system usually exercises in exciting diseases, than that which is observed from such injuries on the motions of the heart.

Although, therefore, we differ from Mr. Travers as to the necessary dependence of the organic life on the nervous system, and although we think he certainly goes too far when he says that “this system forms the portal, as well as herald, of *all* diseased action; and that no altered action, of whatever description, can be instituted but by its medium;”* yet we agree to his assertion, that “the *influence* of this system (i. e. the occasional exciting or depressing influence, not the constant vivifying influence,) is universal, both by solid and fluid, throughout the body; and think him justified in asserting, or rather in assenting to the assertion of many previous pathologists, that, when *local injury* or local disease produces constitutional irritation, or, more simply, *general effects* on the living body, the nervous system is most generally to be regarded as the medium through the intervention of which these effects are excited.

Nor do we think that Mr. Travers attributes too much importance to this principle in pathology, when he contrasts it, in the following sentences, with those simpler and more tangible, but less fundamental principles, which are capable of demonstration in the dead body.

“Out of the debris of the dead subject, however accurately inspected, examined, and arranged, to attempt a solution of the great problem of living actions, and to build on such a foundation an edifice of pathology capable of self-support, is as injurious a fallacy, and scarcely less arrogant or absurd, than that of the Cartesian philosophers, who undertook, out of the depths of their anatomical sagacity, to make a man.” . . . “A very doubtful service would be rendered to science, if the analysis and classification of the various changes met with in dead bodies were to be employed as instruments for the synthetical arrangement and elucidation of the vital phenomena; in fact, for the natural history of disease.” . . . “Until we know more of the springs and sources of action,—the mutual relation, especially, of the nervous principle and the blood,—the cause either of irritation or inflammation will not be determined by inspecting the state and action of the different orders of vessels in irritated and inflamed parts, or by classifying the various changes of structure after death; the former the symbols of the morbid action, the latter its effects. That these, nevertheless, should be the objects of our careful

* Further Inquiry, &c., p. 438.

study, no one will deny; but let them not be made of undue importance, lest they mislead us, and we commit the anachronism of a theory explaining the actions of disease, before we know those of health." (P. 212—16.)

But, while we fully acquiesce in the truth and importance of these observations, we must admit that it is very difficult to acquire precise and definite information, and very easy to deceive ourselves by plausible but vague and indefinite speculations as to the intimate nature of diseased actions, when considered independently of, or antecedently to, the formation of diseased structures; and particularly as to the mode and extent of influence of changes in the nervous system in exciting such actions: nor do we find, in Mr. Travers's work, any facts to give additional precision to our ideas on this subject. The experiments above mentioned, although they put beyond all doubt the special influences of certain changes in the brain and spinal cord on the circulation in the capillaries,—certainly the primary seat of inflammation, of fever, of much functional and all organic disease,—yet hardly carry us farther than the general principle which might be inferred from other facts, (and particularly from the influence of mental affections in altering the capillary circulation in health, and in exciting or modifying such diseases,) of the *possibility* of all such diseases, whether general or local, being excited through the intervention of the spinal cord and nerves.

In so far as Grief, Fear, Anxiety, or mental depression of any kind, acts as a predisponent cause,—and in so far as Cold acts as an exciting cause of any such disease,—it must be through the nerves of the parts where the diseased actions begin that these causes produce their effect; and that effect is, to a certain degree, illustrated by the effects, general or local, of sensations and emotions on the flow of blood in the capillaries, and on the other vital actions there, in health. In so far, again, as impressions on one part of the body are effectual in exciting diseased action either in the heart or in the minute capillaries of another part unconnected with the former; as the effect is of the kind called sympathetic, and appears to be dependent, like other sympathies, on sensation, an influence of the spinal cord and nerves is clearly denoted, and is evidently analogous to that which the physical injuries inflicted in the experiments now mentioned exert. These are the cases to which Mr. Travers gives the names of Direct and Reflected Irritation. It is unnecessary to say, that this description applies to the usual mode of excitement of many inflammations, and of some other diseases, both acute and chronic; but it must be admitted that the kind of explanation thus obtained is very deficient in precision.

More specific information may be thought to be given by the result of experiments on individual nerves, particularly the 5th and 8th, of which we have already spoken. The alterations of secretion

and nutrition, and the inflammations in the eye, the lungs, and the stomach, produced by section of these nerves, have been the subject of numberless experiments and of keen disputes, as is well known to all who are familiar with the writings of Wilson Philip, of Broughton, of Swan, and of Mayo, in this country, and of Magendie, Breschet, Milne Edwards, Brachet, &c. in France. But the question is still undecided in what manner the section of these nerves leads to the inflammation and disorganization of the textures; whether it acts directly as the exciting cause of these changes, or indirectly by arresting vital actions, which are naturally consequent on sensations, and by disposing the parts of which the nerves are cut to take on inflammation from other causes, which would otherwise be innocuous. Without pronouncing decidedly on this question, we may observe on the latter point, that if the section of the sensitive nerves of a part were the direct cause of its inflammation, we should expect to see inflammation in all parts of which the sensitive nerves are cut; whereas, the phenomenon in question is seen only in a few parts; and in those parts it originates and is chiefly seated in a single texture, viz. the mucous membrane: that membrane is distinguished from others in the body by its power of bearing the contact of air, of foreign substances, and of excretions elaborated within the body, with impunity. This power seems obviously connected with its vital property of throwing out, when irritated, a mucous secretion which protects it equally, as the cuticle protects the true skin; and this adaptation of the quantity of protecting mucus to the irritation which may act on a mucous membrane, may be very naturally supposed to depend on its sensibility, and to cease when its sensitive nerves are divided, and allow the mucous membrane to inflame and slough equally as a serous membrane would do from the irritations which, in the natural state, excite only a healthy action upon it. On this supposition, the inflammations in question depend, not simply and directly on the division of nerves, but on the action of the air, the food, the bile, &c. on mucous membranes deprived of their sensibility, and thereby in a great measure of their protecting mucus; and bear an analogy to the inflammations of the same membranes which frequently take place from deficiency of the mucous secretion, in cases of death by starvation, and towards the close of lingering and exhausting diseases.

On this last supposition, the inflammations of the part in question, excited by the section of their nerves, are by no means analogous to those excited through the intervention of nerves, by cold or other causes, applied at a distance, in the entire state of the body; but, on the contrary, they demonstrate that the morbid process of inflammation may be excited, run its usual course, and produce its usual effects, in a part when we have no evidence that any vital actions, strictly peculiar to the nervous system, are going on.

Another well-known cause, in which inflammation of the part supplied by a nerve is, in part at least, the effect of loss of the nervous power, is the case of a paralytic limb inflaming from the application of a degree of heat which would not injure a sound and sensible limb. Cases of this kind are quoted by Dr. Ley, in the work before us, (p. 357,) from the papers of Dr. Yelloly and Mr. Earle, in the *Medico-Chirurgical Transactions*. The only inference drawn by Dr. Ley from this fact is, that the nervous influence gives to the capillaries the power of resisting sudden alternations of temperature, which is lost when that influence is withdrawn; which, if it be meant for more than a mere expression of the fact, is both vague and theoretical. Probably the true explanation is merely this, that the limb being colder than a sound limb, has its temperature raised by the application of a given external heat through a greater number of degrees; and the effect of heat on vital action is in general proportioned, not to the severe temperature that may be applied, but to the degree of change of temperature which is undergone, as is seen, *inter alia*, in the inflammation of frostbite succeeding the restoration of the natural temperature to a limb which has been cooled much below it. If this be so, this effect of injury, or loss of function in a nerve, is likewise obviously *indirect*.

Dr. Ley has stated (p. 274 and 302,) we think quite correctly, that the coldness generally observed in a paralytic limb, and the corresponding symptom of increased heat in a limb, of which the sensitive nerves are much excited, as in neuralgia, ought not to be regarded as proofs that animal heat is evolved from the blood by the action of the nerves. He argues that, although the circulation continues in a paralytic limb, the nutrition and secretion are usually much diminished; and therefore that those changes in the arterial blood which, on chemical principles, are to be regarded as the cause of the evolution of heat from it, are defective. He does not seem to be aware that an elaborate investigation, by Dr. Chossat, into the effects of injuries of the nervous system on animal heat, gave this result, in perfect accordance with this view of the subject, that all those injuries, and only those injuries, which materially influence secretion and nutrition, influence also the evolution of animal heat.

The whole effect of increased excitement of the functions certainly belonging to the nerves, particularly to the sensitive nerves, in any part of the body, (as in cases of neuralgia,) in exciting the flow of blood to the part, raising its temperature, and often increasing its secretions and ultimately its nutrition, are well illustrated by the recital of various cases in Dr. Ley's work, (p. 301 et seq.) In particular, he gives four cases which show, what might at first be thought quite inconsistent with the facts above stated, that neuralgic pains and increased sensibility in a part, keeping up a constant congestion of blood in it, sometimes occasion it to

inflammation from slight causes, such as leechbites, and frustrate the cure of such inflammation.

These facts are important to our present purpose, because they show how much the actual circulation may be influenced by changes in the sentient extremities of the nerves, the effect of which is "retrograde along the branches of the arteries;" and this is obviously one of the chief causes of the want of harmony, so frequently observed, and so important to be understood, both in the healthy and diseased state, between the actions of the heart and the flow of blood in the capillaries of any one part of the system. But we may observe, although incidentally to our present subject, that Dr. Ley, as well as most other authors, use language which we hold to be demonstrably incorrect, when they say that the consequence of increased excitement of nerves is "*a local increased action of blood-vessels,*" or "increased activity of the minute vessels of supply." The change on the vital condition of the blood-vessels, in such cases of locally increased determination of blood, is *diminution*, not increase, of their tonic constriction, the only kind of vital action of which they appear to be susceptible; and the only question is, whether this diminution, giving increased effect to the impulse from the heart, is adequate to explain the phenomena and varied effects of local determinations of blood, or whether such determinations are in part to be attributed to causes affecting the motion and distribution of the blood, but independent of any contractions of moving solids.

It must be admitted, however, that these examples either of injury or disease of nerves affecting the capillary circulation bear only a remote analogy to the more usual modes in which the diseased actions, primarily affecting that part of the circulation, seem to be excited: and we think it ought also to be stated that there is still much ambiguity as to the mode of operation of a very important set of morbid causes, viz. the Poisons, of which Mr. Travers (much too confidently, as we apprehend,) asserts, "that there is but one principle on which they operate, viz. the nervous system."

It is, indeed, we believe, generally admitted, when a poison acts with so much rapidity as the strong hydrocyanic acid, or when a mineral acid is taken in such a concentrated form as to disorganize the stomach, and kills more rapidly, without making its way into the circulation, than the same acid taken in a diluted form, and manifestly absorbed into the blood,—that the poisonous effect depends simply on an impression made on the sentient extremities of the nerves, and immediately transmitted to the larger masses of the nervous system, and thence to the circulating system, and which may be held to be analogous to a concussion. But, in the more common case, where the action of a poison applied to the surface of the body is slower, and where the experiments of Fontana, Brodie, Barry, and many others, show that its absorption

into, and transport by the blood, is an essential preliminary to that action, what evidence have we that it is through the nervous system that it produces its fatal effects? Mr. Travers seems to think that, even in this case, the circulation of blood at the part is necessary, not as a means of transporting the poison into the system, but only as a necessary condition to the excitability of the nerves of the part, (see p. 396;) apparently not being aware of the experiments of Segalas on the effect of poisons inclosed in isolated portions of intestine, in which it appeared that, although the circulation at the part was left free, if the vein leading from it was punctured, so as to discharge its blood, (in which case it seems obvious that the nerves of the part must have remained excitable, although the blood passing through the part did not return to the heart,) the poison was equally ineffectual as when the vein was tied.* This experiment, we think, compels those who believe that the only action of poisons is through nerves, to resort to the supposition of Dr. Addison and Mr. Morgan, that the sentient extremities of the nerves of the veins are the part of the nervous system on which that effect is specially produced.

Although this last opinion is not quite in accordance with that which Mr. Travers maintains in the passage to which reference has been made, yet he holds this opinion also, and refers to the well-known experiments of Dr. Addison and Mr. Morgan in support of it, but especially to that one (an *experimentum crucis* in his opinion, but which he has not quite accurately described at p. 390,) in which a poison is included in a tube between two ligatures on a vein; the ligature *farthest* from the heart being removed, the poison, previously inert, *immediately* becomes active. But, although this result is certainly different from what might have been anticipated on the supposition of the circulation of the poison in the blood being essential to its action, yet we cannot regard it as a conclusion against that supposition, unless it were shown that the poison, when the ligature above it is removed, and when it mingles itself with the stream of blood in the vein, does not taint this blood as far back as the next anastomosing branches, and so make its way forwards to the heart. That this is not the effect of removing the farther ligature is not shown by these authors; and their other experiments in favour of their peculiar doctrine of the mode of action of poisons, we have no difficulty in pronouncing to be inconclusive.

When, on the other hand, we consider that most poisons manifestly affect the vital constitution of the blood; that they have appeared in experiments on the heart, and on the stomach and bowels, when still acting after their removal from the body, to affect them nearly in the same manner as when their connexion with the nervous centres was entire; and, still more, that they *act powerfully on vegetables*; we confess that we are by no means

* See Journal de Physiologie. 1822.

satisfied with the evidence of the theory which would resolve the whole *modus operandi* of poisons into an impression on the nervous system; and considers it much more probable that, when they circulate in the blood, they directly affect *all* the living textures and all their vital endowments,—not the nervous system only, but the muscles, the glands, the organs of assimilation and nutrition, and the blood itself; some of them, however, exerting a special influence on one of these parts, and others on another.

We think it the more important to state these considerations as to the action of poisons, as that action is clearly more analogous than anything else in relation to the mode of excitement of some of the most formidable diseases, on which Mr. Travers pronounces an equally decided opinion. He applies the term *constitutional* to erysipelatous inflammation, to gangrenous inflammation, and in general to those inflammations which show the “disposition to appear independent of injury, to relapse or reappear in the same organ, to spread by continuity, to appear in various parts or organs at the same time, or consecutively in different textures, premising the same characters as tubercular deposit, or suppurative inflammation, or erysipelas; to pass rapidly from the state of phlegmonous inflammation into erysipelas or gangrenous inflammation.” And, in regard to “secondary inflammations, i.e. inflammations partaking of the same character in distinct parts of the body,” he says that they “show more than any other the influence of the constitution on the local action;” and that he “cannot attribute any of these to absorption or the introduction of pus into the blood, but to the principle of morbid irritation, extending to the system at large, which was at first confined to the part.” (P. 223.) These expressions are not so definite and precise as could have been wished, but they seem plainly to indicate an opinion that several of the varieties of inflammation which are now usually called *specific*, and particularly erysipelas, differ from the more ordinary form of inflammation, not in their external cause, but merely by reason of peculiarities of constitution of the person affected; and that, when the singular phenomenon is observed of purulent deposits, preceded by slight and brief inflammatory symptoms only in the part where they take place, but preceded by the gradual formation of large quantities of pus in distant veins, or in other parts of the body, this is by no means to be ascribed to any absorption and circulation of purulent matter in the blood, but only to a “principle of morbid irritation,” acting (we presume he would add,) in that *primum mobile*, according to him, of all vital action, healthy and morbid, the Nervous System.

Now, in opposition to this, we think it may be maintained, almost with certainty, that the epidemic extension of cases of erysipelatous and gangrenous inflammation, particularly in hospitals, and their occurring in persons of all possible varieties of previous health and constitution, are sufficient to show that their

peculiarities often depend, not on the constitution in which they appear, but simply on the cause from which they arise; a cause often obscure, but sometimes as distinctly conveyed from one individual to another as smallpox or measles is. And, in regard to the theory of the secondary purulent deposits, when we observe the extraordinary rapidity with which they form, (e.g. within the cavities of joints,) and recollect that the purulent matter has been often detected in large quantities in the veins leading from suppurating surfaces, we cannot hesitate to express our belief that it is the presence of this morbid matter in the circulating blood which determines, in such cases, this peculiar effect of the secondary inflammation, wherever or however it may be excited.

It is very possible that great part of the symptoms which distinguish a specific (e.g. erysipelatous) inflammation, may be really owing to changes in the condition of the nervous system; and we think Mr. Travers established in his former work, more distinctly than any previous author had done, the important principle that certain injuries, primarily affecting the nervous system, are naturally followed by a form of fever which is typhoid rather than inflammatory, and very analogous to that which so frequently attends the specific inflammations now in question. But we adhere to the belief that the most essential and important parts of the pathology of many such cases of specific inflammation are, the peculiarity of their external cause, and the change effected by that cause on the constitution of the blood; and that the affection of the nervous system is only a part of the effects which that external cause, introduced into the circulating system and tainting the blood, produces on different textures of the body.

We think it evident, from what has now been stated, that the share which the nervous system has in producing those diseased actions which show themselves most distinctly in the Organic Life,—in the function of circulation, and in the vital actions of which the capillary vessels are the seat,—still requires much careful and discriminating investigation, and is by no means satisfactorily expounded by the sweeping assertion of Mr. Travers, that the “nervous system forms the portal as well as the herald of all diseased action.”

II. In proceeding to enquire into the exact state of our knowledge as to the pathology of the strictly Animal Functions,—and first as to those modifications of the animal functions which depend on changes confined to the *nerves*,—we enter on ground of more limited extent and less general importance, but fortunately admitting, in the present state of physiology, of the establishment of more definite and satisfactory principles, and indeed of a precision of knowledge which was lately thought unattainable; and we avail ourselves, with much satisfaction, of the work of Dr. Ley as a guide; because, although many facts on this subject are contained

in the writings of Sir C. Bell, Dr. Abercrombie, Mr. Swan, Mr. Mayo, and others, the general principles which these facts may be thought to establish are more distinctly laid down in his work than in any of the others.

The following are the propositions relative to injury and disease of nerves which Dr. Ley regards as established:

“ 1. That, if injury or disease affect the trunk of a given nerve, the principal effect will be observed at *the remote extremity* of its filaments. 2. That *all* the branches proceeding from such common trunk will have a *similar disturbance* of function, from the same morbid impression. 3. That the morbid affections of nerves resolve themselves into those of *excitement* and those of *defective energy*, each promoting peculiar and definite symptoms. 4. That excitement may be the result of *mechanical impulse*, of *vascular congestion* and irritation, of *inflammation*, of *structural disease*, and sometimes perhaps of *simple functional disorder*: and 5. That diminished energy is generally the consequence of some *extraneous pressure* on a healthy nerve, or of *atrophy*, either primitive or secondary, of the nerve itself.” (P. 286.)

On most of these points, however, some limitation of the statements is necessary, and some difference of opinion may exist.

1. Of the first statement there is this important limitation, that it is only in the *healthy*, not in the diseased state of a nerve, that the effects of injury, or of fresh disease, are confined to its extremities. Dr. Ley's own work, as well as the others before us, contains many cases in which *extensive* pains or *general* spasms resulted from *local* disease of individual nerves of some standing; and Mr. Mayo has stated, in connexion with this, and illustrated by cases, the important practical principle, that when neuralgic pains *immediately* succeed an injury or wound,—such as that from bloodletting,—they may be arrested by dividing the nerve which has been wounded, above the part injured; but that, if the pains commence *after the cicatrization of the wound*, the chance is that the disease excited in the nerve has extended too far to be relieved by that operation. (*Outlines*, p. 134 et seq.) Dr. Ley states, however, that, “in the natural and healthful state, nerves are probably media of transmission only,—*les agents de la transmission des impressions*,” and this appears to be so much the case, that it is well known that such compression of a nerve as excites no pain may excite the sensibility of all its parts below the point pressed. Still the fact is not correctly expressed by saying that sensitive nerves, in the healthy state, “are in themselves little sensible:” the proper expression seems to be, that they are composed of filaments, the sensibility of which is strongest, and for useful purposes is almost exclusively excited, at their extremities.

It is unnecessary to quote illustrations of the well-known fact that the pain resulting from irritation of a sensitive nerve is referred to its extremities, and that the spasms excited in muscular parts by irritation of a nerve are likewise at the extremities of that

nerve; nor do we think that there is any such difficulty as Dr. Ley states in reconciling this fact to Sir Charles Bell's principle of a nervous circle, connecting the voluntary muscles with the brain. Every nervous filament, according to that principle, is capable of transmitting impressions in one direction only, and has no power to "act both to and from the sensorium." Dr. Ley thinks that this rule is transgressed when "an impression is made upon a nerve, and sensation is experienced at a point more distant from the brain than the seat of the impression;" and proposes different modes of reconciling the fact to that principle. But it appears to us that the fact is quite in accordance with the principle. The impression is made on a nerve somewhere in its course; but it is made on the same nervous filaments which terminate at the sentient extremities of the nerve, and which are used in the natural state only to transmit impressions up to the medulla oblongata from these sentient extremities. When an impression is made at an unusual spot in the course of the nerve, it is still transmitted *upwards*, and, coming through the same filaments, it is *referred* by the mind to the same parts as that which was wont to be transmitted from a greater distance; but there is no transmission *downwards* by that nerve.

When an impression is made on a sensitive nerve consisting (as is now ascertained to be common,) of different filaments with different endowments, it does not always affect all those filaments, and therefore does not always excite the sensations which are usually referred to that nerve. But, if a nerve be forcibly pinched or compressed in any part of its course, it may be presumed that every filament which it contains must be injured. This is probably the explanation of the curious fact observed by Dr. Marshall Hall and Mr. Broughton, in experiments on the ass, that irritation of the par vagum in the neck with a needle excited no such instinctive effort as to indicate any peculiar sensation; but compression of that nerve with a pair of forceps was followed by a cough and effort of deglutition, implying apparently the production of sensations which, in the natural state, result only from impressions on the mucous membrane of the air-passages and pharynx.

2. In illustrating the proposition that "all the branches proceeding from a common trunk will have a similar disturbance of their function from the same injurious impression," Dr. Ley has, we think, omitted a consideration of some importance. He says that the apparent exceptions to this rule are to be explained only by filaments of sensation and of muscular movement being bound in the same sheath, and nevertheless capable of being differently or even oppositely affected; and it is in this way only that he can explain the occurrence of "long-continued, periodical, agonizing pain, while the muscles supplied from the same source were become paralytic and shrunk." In this case, indeed, we may suppose that the motory filaments of a set of compound nerves have lost their

power, while the sensitive have been excited to increased action. But this explanation does not apply to the case which we have repeatedly seen, and which he has himself elsewhere described, of severe pain distinctly referred to a part of which the *sensitive* nerve (e. g. the 5th nerve, as supplying the face,) is palsied. Here the explanation obviously is, that the same injury or disease of one *portion* of a nerve which transmits fallacious impressions upwards, and *excites the action* of the portion of nerve above it, prevents the transmission of natural impressions from below, and so *suspends the function* of the portion of nerve below it.

3. On the division of the morbid affections of nerves into those of "excitement and of defective *energy*," we would only remark, that the last word is objectionable, because in the minds of many it implies a theory, and that we would greatly prefer the terms excessive or deficient *action*. Dr. Ley accurately describes the peculiarities of those pains which proceed from disease of sensitive nerves; their being "sometimes periodical, much more frequently paroxysmal; their occasional concurrence with convulsive starting of muscles;" their returning at irregular periods, and from very slight or unobserved causes, and their "fearful severity." He is right, we think, in excluding from this general description the characters—often given, but, except in the case of such pains in the extremities, not so often distinctly recognized,—of neuralgic pains *following the course* of nerves. But he illustrates at some length, as has been already noticed, the local determination of blood to the part affected,—the sense of heat,—the increased sensation in some cases, increased nutrition in a few, and proneness to inflame from slight causes. The greatest deficiency that we observe in this part of his work is, that he does not enter into any details as to the parts of the body in which these pains, dependent on diseases confined to individual nerves, are most generally observed. An accurate analysis and abridged description of cases of severe suffering, ascertained to be dependent on this cause, in different parts of the body,—in the face and head, in the neck, the sides of the trunk, within the thorax, the abdomen, and pelvis, as well as in the extremities,—would be of very considerable value, particularly to young practitioners, who are apt to confound such cases either with inflammation of other textures, on the one hand, or with more dangerous organic diseases on the other.

The intermitting or remitting character of diseases strictly seated in the nerves is justly stated as an important characteristic, referrible only to that general law of nervous action, both healthy and diseased, (evidently one of the points of analogy subsisting between it and muscular contraction,) that all such action naturally alternates with periods of inactivity, and all unusual increase of it with intervals of diminished power.

4. It will be allowed on all hands that "mechanical impulse, or other local stimuli, vascular congestion, inflammation, structural

disease, and functional disorder," are all causes from which excessive excitement of nerves and painful or spasmodic diseases may originate; but the discrimination of these causes in individual cases is often difficult, and the real cause irritating a nerve, where it can be ascertained at all, is often ascertained only after death.

Among mechanical causes of excitement of nerves Dr. Ley enumerates, as has been common, "forcible distention," but he judiciously observes, and supports his opinion by reference to experiments of Swan, Bichat, and Bourdon, that paralysis is infinitely more common as a consequence of *mere stretching* of a nerve than excitement, and that the pain often observed from extension of nerves is probably chiefly owing to the inflammation and ulceration which result.

We are accustomed to speak so vaguely and confidently of "vascular congestion and irritation," as a cause of increased action of any part of the nervous system, that our readers may be surprised to find only a single *unequivocal* case recorded by Dr. Ley, from Bichat, of severe pain of a nerve (the sciatic) proceeding from this cause; the nerve being encompassed and penetrated at its upper part by a little plexus of varicose veins.

Dr. Ley has taken much pains to illustrate the subject of inflammation of nerves, or their neurilema, in its first stage, as a cause of morbid excitement of their functions; although, in the advanced stage of inflammation, when the nervous matter is either softened and disorganized or compressed by effused lymph, it is naturally to be expected that its functions will be suspended. But, among his statements on this subject, we meet with several, of the accuracy of which we are by no means satisfied.

He points out no means of judging whether increased excitement of a nerve results from inflammation, excepting only the pain and tenderness in the course of the nerve affected, which of course must frequently be imperceptible, from its internal situation; but he enumerates distinctly the different structural changes consequent on and indicating inflammation, which may be ascertained on dissection. Among these he specifies particularly "*permanent redness*, observable soon after death." Now, we must be permitted to deny that any such alteration of colour, and of the quantity of blood in the minute vessels of a portion of nerve, or even ecchymoses in its substance, *without any appearance of inflammatory exudation*, is a true indication of inflammation. At the time of the minute investigation of the morbid appearances in cholera, we saw so many examples of these appearances in various nerves, in persons dead both of that and of other diseases, and whose symptoms were known, that we are confident that, if they indicate inflammation at all, it must be inflammation which neither produces excitement of any of the known functions of nerves, nor gives any other signs of its existence during life.

Of the exudation of lymph on the membranous coating of nerves, of the varieties of hardening and softening of the nervous substance itself, and of the suppurative inflammation and ulceration of nerves, he gives various examples. But we think he lays it down too broadly that the natural effect of the inflammation which effects all these changes is *excitement* of the functions of a nerve, and that it is only when there is such an effusion of lymph as to “strangle the nerve” that loss of power is to be expected. At least, in the case of nerves of motion (e.g. the portio dura,) we are confident, from the rapid occurrence of the palsy after inflammation (apparently rheumatic) has attacked the nerve, and from the nearly equal rapidity with which, in some cases, that palsy has abated; that the loss of power of the nerve, like the loss of power of muscular fibres affected with inflammation, has occurred in a very early stage, and certainly when the nerve could not have been “strangled” by effused lymph.

He is at pains to enumerate the *causes* from which inflammation of nerves or their coverings may result: he illustrates the efficacy of cold, of exposure to air, and quotes with approbation the opinion of Messrs. Langstaff and Swan, that the chronic inflammation and bulbous enlargement of the ends of the nerves of stumps, so often attended with frequent and acute paroxysms of pain, are frequently the effect of exposure to air, and may be prevented by drawing the nerves beyond the surface of the stump at the time of amputation, and cutting off such portions of them as may secure their receding beyond the reach of atmospheric influence. He then quotes several cases to show that where a nerve has been injured in any way, as by puncture or ligature, and afterwards becomes the seat of violent paroxysms of pain, these are generally to be ascribed, not to the original injury, but to a chronic inflammation of the nerve or its membrane; of which the injury was one cause, but not the sole cause. Most injured nerves, after venesection, for example, according to the statement of Mr. Abernethy, “are made troublesome by using the arm too soon, and bringing on inflammation; for I have never seen any bad consequences in those patients who have been unable to do anything.”

So also, when unusually intense pain attends simple inflammation, ulceration, cancer, or the growth of a tumour, he considers the cause to be, not the mere stretching or compressing of the nerve, (of which he thinks the more probable effect would be diminution than excitement of nervous action,) but extension of the inflammation to the nervous matter itself, or its immediate covering; and he adduces several ingenious arguments to show that, in a case of Sir B. Brodie, the stretching of two branches of the lumbar nerves over two enlarged lymphatic glands, “like the strings passing over the bridge of a violin,” was not an adequate cause of long-continued pain, and of “repeated attacks of intense suffering, attended with

violent spasm of the muscles of the thigh;" but that these symptoms depended on the nerves partaking of the diseased state of these and other textures about the groin.

He applies the same principle to the case of aneurisms, and various other tumours growing in the immediate neighbourhood of nerves, and often causing the most intense suffering, sometimes even death itself, *per acerbissimos cruciatus*, by pressing or stretching, and, as he supposes, exciting inflammation, and ultimately ulceration, in these nerves. He allows, indeed, that tumours situated on nerves, (neuromata,) or the painful subcutaneous tubercles of Mr. Wood, which he supposes always to involve nervous fibrils, may cause intense pain by acting merely as mechanical irritants, like the needle or probe of the experimental physiologist. But he evidently inclines to the belief of chronic inflammation gradually excited in the nerve in every such case; and, although he admits that great excitement of the functions of a nerve, acute pain, or violent spasm, *may* result only from functional derangement, yet he seems much disposed to think that in all such cases some tangible disease would be discovered, if the nervous filaments were followed up through their bony canals, in a way in which M. Laennec has observed that "hardly any case has been examined."

Now, it is not a fair and complete statement of this question to say that the prevalent belief of neuralgic pains being in general essentially distinct from inflammatory pains, is grounded only on the negative fact, that no marks of inflammation have been found on dissection in cases where such pains have long existed. The belief rests, besides, on many positive facts in the history of such cases; on the suddenness of the attacks of the paroxysms of intense pain; on the completeness of the intermissions and maintenance of the general health during them; the long duration of the disease, the experienced frequent inefficacy of antiphlogistic means, and the occasionally signal efficacy of means (such as quinine in the hemicrania,) which have no powers over inflammation. Some of these considerations, indeed, further prove that, even when chronic alteration of structure in nerves or their neighbourhood is attended with neuralgic pains, these tangible and permanent diseases are not the *sole* causes of the symptoms, any more than a tumour in the brain can be the sole cause of fits of epilepsy; but must be combined with some more acute and more transient diseased action, to which, in fact, it may be regarded as standing in the relation of a great and permanent predisposing cause. Such diseased action frequently results in part from chronic alteration of structure, and is frequently also in part excited by inflammation, and admits of occasional and partial relief from the remedies of inflammation; but it may exist independently of either the one or the other: it is confined to the nervous matter, is known to us, like the healthy

changes in that matter, only by its effects, and is therefore termed, with strict propriety, functional disorder of nerves.

5. After concluding the subject of morbid excitement of nerves, Dr. Ley goes on to treat of "defective nervous energy," or defective action of nerves; stating, first, the effects of their deficiency in the vital actions of a part,—not merely the diminution or loss of sensation or of voluntary power, or of both, but likewise the diminished nutrition, the diminished power of generating heat, and likewise (what we apprehend to be the result of the habitually low temperature thus produced,) the increased tendency to inflammation from heat; and, lastly, the "withering of the nerves themselves," more remarkably observed, we believe, in the case of the optic than of any other nerves, and affording another plausible ground for conjecture that the imperceptible actions which take place in nerves are in some degree similar to the perceptible actions of muscles.

He then proceeds to illustrate the principle, which he considers as an important step to more precise knowledge on this subject, that simple pressure on a sound nerve is always followed by more or less of *loss of the nervous power*, and that it is not by reason of any change in the degree of pressure, but only by reason of the inflammation, or other disease, affecting the nervous matter itself, which it may excite, or on which it may supervene, that this cause can ever produce *excitement* of any of the powers of nerves.

"Such contrary effects as pain and convulsive movement, on the one hand," says he, "and impaired sensibility, with or without defective muscular power, on the other, are in reality, as they might be expected to be, the result of causes differing rather in essence than in degree; and, while the former of these effects are the consequence of the various changes of excitement already considered, the latter are the result commonly of pressure." (P. 382.)

Indeed, atrophy of the nerve, "primitive or secondary," is the only other cause of diminished nervous energy which he admits.

But we must be allowed to doubt whether the change in the condition of the matter of a nerve on which the loss of its power depends, is always to be distinguished from that on which its excitement depends in this simple manner. We have already stated that there are examples of inflammation, at least of motor nerves, in which they are completely palsied; while there is neither evidence nor probability of their being compressed or "strangled" by effused lymph. On the other hand, what is the "mechanical impulse," in the experiments of physiologists, and in injuries and sometimes in diseases of the human body, already stated as a cause of excitement of nervous action, but pressure? What is the compression of the par vagum, in the experiments of Marshall Hall and Broughton, by which the efforts of inspiration and of deglutition were excited, but pressure; and this on a sound nerve? It is plain, indeed, that a certain degree and a certain duration of

pressure on a nerve destroy its powers, and that a more rapid or more frequently repeated pressure may excite its action only by causing it to inflame; and the distinction of these two cases is accurately stated by Dr. Ley: but, when he says that mechanical impulse on a sound nerve is a cause of excitement, and that pressure is a cause of palsy, we do not see that he differs materially from other pathologists whom he professes to refute, and who have taught that a certain degree or a certain duration of pressure excites a nerve, but that a greater degree or duration of pressure, acting on an uninflamed nerve, palsies it.

We think it best not only to admit, but expressly to avow, that the condition really essential either to excitement or to loss of power in a nerve is unknown to us, perhaps inscrutable by us, simply on account of the very minute structure of the nervous matter; and then to state the different external causes or antecedents by which each of these morbid states has been observed to be produced, without dogmatically asserting that either of those conditions is an uniform and necessary consequence of any one of those antecedents.

Dr. Ley further illustrates the pathology of nerves by an elaborate discussion of the "functions and attributes, in their natural and diseased conditions," of the most singular and complex in its endowments of all the nerves, viz. the Par Vagus; beginning this part of his work by a distinct statement of the distribution of the different branches of this nerve, and of the functions of these branches, so far as they are known. Of the physiological view of the larger branches he gives, we believe, a very accurate account; but we must protest against the vague and unsatisfactory statement, at p. 413, of the use of the smaller "filaments of communication" between this and other nerves of the neck. The connexion of these filaments, he says, "with the lingual nerve is to associate the respiratory organs with speech and deglutition; with the cardiac plexus, to associate them with the heart's action; with the facial, for the purpose of connecting them with the muscles of expression; with the three upper cervical nerves, that the respiratory function may be partially under the influence of volition; and with the sympathetic, that secretion may be insured:" every word of which statement is hypothetical, and, as we firmly believe, erroneous; the greater part of it proceeding on the fundamental assumption that sympathetic actions may be explained by nervous connexions, the fallacy of which was clearly pointed out, "sixty years since," by Whytt, Monro, and Haller.

It is clearly proved, however, by experiments on animals, especially those of Cruveilhier, that a convulsive cough may originate from irritation of the par vagum, the irritation apparently *imitating in the sensation it excites, and therefore in the effect it produces, those natural irritants of the air-passages* by which cough is excited; and Dr. Ley quotes various cases of injury, or at

least probable injury of this nerve, in surgical operations, or in diseases where this symptom has been urgent and unexplained by any morbid changes in the air-passages or lungs. We have ourselves known examples, not only of cough, but of paroxysms of dyspnœa, connected with inflammatory effusion, either at the origin of the par vagum or at the passage of those nerves out of the skull which are ascribed to this cause; and we agree with Dr. Ley in thinking that, "in nervous sensitive patients, and especially in girls about the period of puberty, violent, deep, sonorous, paroxysmal cough, aggravated rather than improved by depletion, and cured by chalybeates," must in general be owing to simple functional disorder of the par vagum: and in so far as asthma and hooping-cough are truly spasmodic diseases, they are obviously dependent on spasms of parts which are moved by the motor branches of these nerves, and are therefore dependent either on functional disorder or on a certain degree of structural change in them. He quotes cases also in which severe dyspeptic symptoms probably resulted from disease affecting the lower branches of the par vagum; and we have ourselves seen one remarkable case, in which a slight morbid deposit, lying close on the œsophagus, just where it penetrates the diaphragm, had been connected with symptoms so closely resembling those of organic disease of the stomach as to have led different experienced practitioners to consider that disease unequivocally indicated. But Dr. Ley admits that "the symptoms which result from an excited state of those branches of the pneumo-gastric nerves which are distributed on the stomach cannot yet be stated with precision."

The effects which result from the division of the par vagum, and consequent loss of nervous action in its branches which supply the lungs and stomach, have been the subject of numberless experiments; and we have already adverted to the obscurity which still attaches itself to any explanation of these effects. On this subject we have only to remark here, that Dr. Ley very properly refers to the decisive experiments of Breschet and Edwards, and of Brachet, as proving that the peculiar sensations of the stomach and lungs are lost, (although, no doubt, other morbid and fallacious sensations are substituted,) and the peculiar motions of the œsophagus and stomach, and of the bronchi and back part of the trachea, suspended, in consequence of the section of these nerves; and we very much doubt the necessity of going farther than these acknowledged facts to explain the disturbance of the functions of the lungs and stomach which naturally results.

Of the effect of the loss of nervous action in the branches of the par vagum supplying the larynx,—i.e. the superior laryngeal nerves, by which the arytenoid cartilages are approximated, and the recurrent nerves, by which they are held asunder,—we are now very accurately informed, both by experiments and by pathological observations. The experiments of Le Gallois, of Magendie, and of

Bourdon, have distinctly shown that, where the recurrent nerves are cut, the glottis is very apt to be spasmodically closed, and the power of antagonizing the muscles which close it being lost, asphyxia very frequently results; that where the superior laryngeal nerves are cut, the muscular power of closing the rima glottidis, and probably the sensibility also just at that spot, are lost, and foreign substances are very apt to fall into the larynx, and excite, when there, vehement cough and suffocation; and that, when the par vagum is cut above the origins both of the superior laryngeal and recurrent, the danger is much less than when it is cut between the origins of these two, because, "both laryngeal nerves being deprived of energy, the chink remains immoveably open."

It is, as our readers are aware, precisely in conformity with these facts that Dr. Ley endeavours to prove that, in the "crowing disease" of children, and in the "roaring" or "cornage" of horses, the recurrent nerve on one or both sides is compressed, (generally by enlarged bronchial glands,) and has lost its power; the consequence of which is, that, whenever the superior laryngeal nerves act with energy, as in a fit of coughing, or in various other circumstances of excitement, the glottis is spasmodically narrowed for some time; whence arise "paroxysmal difficulty of breathing, with a loud sonorous inspiration, not observable in general when the body is at rest, but readily excited by any violent exertion." And, without presuming to deny that this kind of spasm at the glottis may take place while the recurrent nerves are healthy, we are satisfied, both from his statements and from some personal observation, particularly in cases of aneurism, that it is very frequently dependent on the loss of vital power from compression in these nerves. Nor do we think it at all unreasonable to conjecture, as Dr. Ley has done, that the peculiar sound of the hooping-cough may depend merely on a partial loss of power in the recurrent nerves, from the pressure of enlarged lymphatic glands, either within the thorax or in the neck.

III. The Pathology of the Spinal Cord, as illustrated in the different publications before us, presents no difficulty or obscurity, in so far as it is illustrated by what has been now stated in regard to the diseases of nerves. It is liable to alteration of its own substance from inflammation, terminating in softening, in decided suppuration, or in hardening, according to its character or degree; and in some cases it has been found in a state of complete atrophy, without obvious cause. It is likewise exceedingly liable to alteration or destruction of its vital powers by pressure; the prevention of which is obviously the main object of the essential peculiarity of the structure of all vertebrated animals, but which nevertheless frequently occurs from affusions of serum or of blood in the spinal canal, from inflammation, chronic thickening, or ossification, or the growth of tubercles, of hydatids, or fungoid or other morbid

deposits on the membranes enveloping the cord, or from disease of the bones surrounding them. The nervous matter may be affected, in these cases, either by extraneous pressure or by extension of disease from the adjoining textures. From these causes we may expect, in conformity with what has been stated as to the diseases of nerves, to find the symptoms of excited, or of diminished or suspended nervous action in the parts supplied by the spinal nerves, variously blended in the progress of these diseased states of the cord; and these accordingly are found in the accurate epitome given by Dr. Abercrombie of the symptoms which may induce suspicion of incipient disease of the spinal cord.

“Weakness, numbness, or convulsive affections of any of the limbs; spasmodic starting of the limbs, occurring chiefly during the night; loss of the full power of the muscles, exemplified on attempting such motions as are required in running or leaping, numbness along the margin of the ribs, and a peculiar oppression and tightness across the region of the stomach; various affections of the breathing, difficulty in discharging the urine and fæces, or difficulty in retaining them.” (*Abercrombie*, p. 381.)

He adds, that

“one symptom which should always be contemplated with much suspicion, is a feeling of pain and tightness, or constriction, along the margin of the ribs, as if a tight band were passed across the stomach, generally accompanied with a feeling of distention in the lower part of the abdomen, as if the bowels had in part lost the power of propelling their contents.”

We have looked over his numerous cases illustrating the varied combinations and successions of these symptoms, in the view of ascertaining whether the principle which Dr. Ley attempts to establish in regard to nerves is applicable to the spinal cord,—i. e. that excitement of the nervous power depends on the progress of disease affecting the nervous matter itself, and that loss of power depends either on atrophy or extraneous pressure; but we do not find that any such distinction is uniformly observed. In cases where, from the appearances on dissection, we should say that the cord had been subjected to pressure only, and even to gradual pressure, as from effused serum, there appears to have been violent pain and convulsion, (as in Case 149, at p. 356, and the case from Morgagni, at p. 357-8, third edition;) and, on the other hand, in some of the cases where the substance of the cord had been either softened by suppuration or gradually hardened to the consistence of cartilage, there appears to have been no indications of excitement, and no symptoms but those of gradual loss of power. (See cases at p. 354 and 5, and at 365.)

Indeed, when we take a general view of those diseases of the nervous system in which its larger masses are primarily affected, but where the chief symptoms are in the voluntary muscles, it is impossible for a moment to suppose that a line of distinction

between cases of excited and cases of diminished or suspended action can be drawn either from appearances on dissection or from a knowledge of the mode of operation of the causes of these diseases. When we know that the violent spasms of tetanus or of hydrophobia, or of certain cases of concussion, and that the total loss of voluntary power over most or all the muscles of the body, (as in Cases 144, 5, 6, 7, of Dr. Abercrombie's collection,) may take place without either perceptible lesion of the nervous structure or encroachment on the nervous substance in any part of the body, it is in vain to deny that the essential conditions of the most intense diseases of the nervous system are certainly unknown to us, and probably inscrutable by us; nor need there be any scruple about making this avowal, when we remember that the essential conditions of the healthy agency of nervous matter are equally unknown, that the closest microscopical inspection detects no difference whatever between a nerve which is exciting by an action in its interior, the most intense sensation, or the most violent muscular spasm, and one which is in a state of absolute inactivity. All that we can pretend to do, in laying down the pathology of the nervous system, is to describe and arrange the alterations of its functions which actually present themselves in practice; and then to state the causes, external or internal, which have most generally been observed to precede them, and the alterations of structure which have most generally been found to attend them. The diseased states, as well as the healthy actions of the nervous system, are known to us only by their causes and their effects, not in their own nature.

These observations apply to the diseases of the spinal cord only in common with all other parts of the nervous system, and to the spinal cord considered as the largest of the nerves, transmitting impressions upwards and downwards. The question, what diseased states of the animal functions originate or reside primarily in this portion of the nervous system, admits, no doubt, of a more definite answer than it has yet received. We have now good reason to believe that various diseases and symptoms of disease, which are in common language ascribed to the brain, really result from changes, whether functional or organic, confined to the spinal cord; or, in the language of Dr. Wilson Philip, are affections of the nervous, not of the sensorial functions. Thus, when concussion of the brain, or of the body at large, suddenly depresses the heart's action, enfeebles the pulse, and chills the surface, the experiments of physiologists leave little room for doubt that it is through the spinal cord rather than the brain that these effects are produced. So also, when the heart is suddenly weakened by loss of blood in the erect posture, the common expression, that the heart suffers from the sudden impression made on the *brain*, is probably incorrect; as the anatomical connexions of the heart are with the spinal cord, and particularly with its upper part, the medulla oblongata*

and cervical portion of the cord, not with the brain; so also we have reason to believe that it is by the impression made *there* that the effect is produced on the heart.

Dr. Marshall Hall has stated several facts which prove, more distinctly than any others which we know, the dependence of various spasmodic diseases on the spinal cord rather than the brain. This has often and naturally been supposed as to tetanus, where the excited action of the voluntary muscles is so great and general as to denote the affection of a central and common source of their vital power, and yet the functions proper to the brain are untouched; but the following fact is more distinctly in point than any reasoning.

“Tetanus may be produced at will in the frog or salamander, by applying strychnine to the skin. If the head be removed, the frame is still tetanic; if any portion of the spine, if even the tail of the salamander be separated, it exhibits all the phenomena of perfect tetanus. *These cease on destroying the caudal portion of the spinal marrow by means of a fine needle.*” (*Lectures on the Nervous System*, p. 42.)

That convulsion is strictly an effect of change in the spinal cord, and that any injury or disease of the brain produces convulsions only in as much as it affects the spinal cord in a peculiar way, may also be deduced as an inference from known facts, but is more directly established by the following observation:

“The usual mode of killing sheep is, first to divide the spinal marrow, and then to open the large vessels. At my request, not only the spinal marrow but the entire neck was divided, and the head separated from the body, with the exception of the skin; the blood-vessels were then divided, and I watched the effect of the loss of blood. After a certain hæmorrhagy had taken place, the animal was violently convulsed. This convulsion could only be *spinal*.” (*Idem*, p. 44.)

Convulsion arising from cerebral disease, although often connected with insensibility, denotes an affection of a different part of the nervous system, and is indeed in general to be ascribed to what Dr. Hall calls “counter pressure.” Fodera produced it in animals by pressing downwards *through* the brain on the medulla oblongata, but not by pressing laterally *on* the brain, even when he crushed it completely. In “a little girl aged thirteen months, the croup-like convulsion returned repeatedly, until one day, when the bones of the cranium separated: the convulsion then ceased.” Here, of course, the diseased action in the brain went on; but, when it ceased to exert pressure on the spinal cord, the spasm ceased to result from it. “In the case of an acephalous fœtus described by Mr. Lawrence, convulsion was produced by pressing on the medulla oblongata; and, in a case of meningitis given by Dr. Abercrombie, the anterior fontanelle became very prominent, and pressure on it produced convulsion. Hypertrophy of the brain also produces convulsion, except in the case in which

* We need hardly say that we regard the medulla oblongata as the highest portion of the spinal cord, not as a part of the brain.

the cranium grows with the encephalon;" in which case, of course, the "counter pressure" will be prevented. All this is exactly in accordance with experiments, particularly those of Dr. Wilson Philip.

There is another class of phenomena in which the spinal cord is essentially concerned, more habitually occurring in the sound state, and frequently perverted in disease, which demands notice here. These are the phenomena to which Dr. M. Hall has given the rather uncouth name of "excito-motory," and which he states as the effects of the "reflex function of the spinal cord;" a power neglected or misunderstood, as he thinks, by former physiologists. But there has been some misapprehension on this subject, which we shall endeavour to remove.

It cannot be necessary to remind our readers of the great class of movements in living animals,—so characteristic of animal life, as distinguished from vegetable,—so essential to many of the functions of life, to respiration, digestion, and all their subordinate phenomena,—and so often the subject of discussion among physiologists,—to which the name of Sympathetic Actions is usually given, because they are cases in which an impression is made on some part of the body, and the immediate result is, a muscular contraction, or series of such contractions, in a distant part, which is said to sympathize with that originally impressed. It is thus that the actions of the muscles of respiration are excited, either by changes in the lungs or by applications, such as ammonia, to the nostrils,—or by impressions, such as the dashing of cold water on the skin of the face or breast,—that the actions of coughing, sneezing, deglutition, vomiting, and the movements of the abdominal muscles, of the sphincter ani, of the levatores ani, and acceleratores urinæ, in expelling the contents of the rectum and bladder, are effected.

Dr. M. Hall cannot be ignorant of the statements and reasonings by which Dr. Whytt (supported in this argument by Haller and by Monro,) laboured to prove that these phenomena do not imply a necessary or uniform consent of parts; but that the parts on which, in these cases, the primary impressions are made are connected with those in which the resulting and useful contractions take place only in so far as certain *sensations* are excited through the former parts; which sensations, as he taught, are the immediate cause of the contractions in the latter parts. This doctrine has been substantially adopted by different subsequent authors, and among others by Sir Charles Bell, in relation to the respiratory movements; who has exposed himself, however, to some animadversion by further maintaining (what is no part of the doctrine, and is indeed clearly in opposition to the principles of Whytt,) that the reason of the sensations of the lungs and air-passages acting as peculiar stimuli of the muscles of respiration is, that they have a

peculiar association, at their root, with the motor nerves, or certain of the motor nerves, of these muscles.

But, without entering at present on that part of Sir C. Bell's speculations, we have to observe, that when the discovery of Sir C. Bell, confirmed by Magendie and others, had established the distinction of sensitive and motor nerves, it followed, as a necessary consequence, if the doctrine of Whytt was admitted, that, in any sympathetic action, the sensitive nerves of the part which is primarily impressed, and the motor nerves of the part which is thrown into action, must be those concerned in producing the changes. And, when it was ascertained by Le Gallois, Magendie, Flourens, and others, that the parts of the nervous system essentially concerned in sensation do not extend higher than the medulla oblongata, it became obvious to every one who reflected on the subject at all that, if the doctrine of the dependence of sympathetic actions on sensation is true, it must be the spinal cord and medulla oblongata, not the brain, that must be concerned in producing that description of muscular actions.

Now, the phenomena to which Dr. M. Hall gives the name of Excito-motory are precisely those which come under the old denomination of Sympathetic; and which, we believe, have generally been thought to be dependent on sensation, either immediately or through the intervention of the simplest and most general *instinct* to which sensations naturally lead. When he says that "the incident excitor" (i.e. sensitive) "nerves, the medulla, and the reflex motor nerves, constitute the excito-motory system,"* he merely gives this name to what every disciple of Whytt and Haller must, since the discoveries above quoted, necessarily regard as the parts of the nervous system on which the sympathetic actions depend; and, as it is generally admitted that the needless multiplication of names is a great source of confusion and embarrassment in science, we feel ourselves constrained to protest against the adoption of this new phraseology.

It is true that Dr. Hall has stated facts in regard to the movements of this class which, in his opinion, show that sensation is not necessary to their production. But, if this were established, it would only prove that Whytt and others have been mistaken as to the conditions necessary for exciting the sympathetic actions; not that it is expedient to give them a new name.

We do not, however, consider it established that these phenomena are truly independent of sensation. Dr. Hall's reason for thinking so is simply this, that they may be seen, on certain irritations being applied to the skin or other membranes, after the brain has been destroyed or removed, and when, he thinks, "the sentient and voluntary functions are annihilated." Thus, when a

* Lectures, &c., p. 21.

horse was rendered insensible by a blow on the head with a pollaxe, he remained motionless, manifesting no evidence of sensation or volition, although pricked by a pin or a nail on any part of the surface of the skin; but his respiration, although at first suspended, was soon renewed and went on freely; when the eyelash was touched with a straw, the eyelids were forcibly closed; when the cornea was touched, the eyeball revolved outwards; and, when the verge of the anus was touched, the sphincter contracted forcibly, and the tail was raised. These phenomena all ceased when "the upper part of the medulla oblongata was destroyed by an instrument passed through the orifice made by the pollaxe." Here, according to our author, the blow of the pollaxe annihilated the sentient and voluntary functions; the excito-motory, or sympathetic, remained, but were instantly suspended by destroying the medulla oblongata. Again, in a frog, after the spinal cord is divided below the occiput, there is no trace of *spontaneous* motion, and, as Dr. Hall supposes, no sensibility; but, on pinching the toe with the forceps, both posterior extremities are moved; and, on pinching any part of the skin, there is a recurrence of what he calls the excito-motory phenomena. These are no longer excitable after the spinal cord is extracted or destroyed with a probe, although the muscles remain distinctly irritable, as is proved by the application of galvanism.

All this, as Dr. Hall observes, is wonderful; but we cannot help expressing our surprise at his adding, "and, I believe, hitherto quite unknown to physiologists." Such facts had been often observed and recorded, but were generally regarded as proofs that a certain degree of sensation *remains* in these circumstances; and we are by no means satisfied that that supposition is erroneous. Dr. Whytt states, e.g., "A frog lives and moves its members for half an hour after its head is cut off; nay, when the body of a frog is divided in two, both the anterior and posterior extremities preserve life and a power of motion for a considerable time." (*Essay on the Vital and Involuntary Motions, &c. Edinb. 1751, p. 384.*) Again, "if one of the muscles of the leg of a frog is irritated after cutting off its head, almost all the muscles of the legs and thighs are brought into action, *if the spinal marrow be entire*; but, as soon as it is destroyed, although the fibres of such muscles as are themselves irritated are affected with a weak tremulous motion, yet the neighbouring muscles remain at perfect rest." (*Observations on Irritability in Nerves, p. 291.*) He supposed that in such cases sensation remains. "We have no other way," says he, "to satisfy ourselves that an animal is alive or endued with feeling, than by observing whether it shews an uneasiness when anything hurts or tends to destroy any of its parts, and an endeavour to remove or avoid it. Since, therefore, the bodies of vipers make just the same kind of motions, when pricked with a sharp instrument, two or three days after losing their head, heart, and other

bowels, as if they were entire, we are naturally led to conclude that they are still in some sense alive and *endued with feeling*, i. e. animated by a *sentient principle*." (P. 388.) Haller mentions similar facts, even in warm-blooded animals, and draws the same inference. Mr. Mayo is more cautious as to the inference that sensation in these circumstances remains; but was fully aware, long before Dr. Hall wrote, of the necessity of the spinal cord in such motions.

"When the skin of the lower extremities of an animal," says he, "is irritated after the division of the spinal cord in the back, muscular action occurs, limited to the muscles of the inferior extremities. I have varied this experiment by dividing the spinal cord at once in the neck and back, upon which these unconnected nervous centres exist, and the division of the skin in either part produces a convulsive action of the muscles of that part alone. It may be said that this experiment of making different nervous centres by division of the spinal marrow, admits of explanation on supposing the principle of volition, and sensation also, to continue for a short period extended to the portions separated from the brain; a conjecture consistent with, though not established by, the very curious fact that the movement of the leg of an animal thus circumstanced, when the sole of its foot is irritated, is accurately the gesture which the animal employs when, in undisputed possession of sensation, it retracts its limb from a similar aggression." (*Anatomical and Physical Commentaries*, No. 2, p. 18.)

Le Gallois, after describing similar experiments which he had very frequently made on young rabbits, says, "La section de la moëlle a evidement etabli, dans le même animal, deux centres de *sensations* bien distincts et independans l'un de l'autre; l'on pourroit même dire deux centres de volonté, si les mouvemens que fait le train de derrière, *quand on pince la queue*, ou bien une des pattes posterieures, supposent la volonté de se soustraire au corps qui le blesse." (*Experimens sur la Principe de la Vie*, p. 60.) It is well known that Le Gallois proved by numerous experiments that these indications, as he thought them, of sensation and of intuitive or voluntary motion in the trunk and limbs, remaining after the head of an animal has been cut off, or its spinal cord *divided*, are uniformly and instantaneously destroyed by *crushing* the spinal cord. (See *Experimens*, &c., p. 32 et seq.) A Dutch author, Van Deen, treats the subject fully, and explains distinctly the difference between these movements and the simple effects of irritability. "Stimulus ranæ decapitatæ applicatus stimulat *nervos sensorios*, qui hunc stimulum acceptum in centrum (*medullam spinalem*) propagantes, hic solito munere funguntur, et reactionem, scilicet motûs stimulum procreant." (*De differentia et nexu inter Nervos Vitæ Animalis et Vitæ Organicæ*, p. 76.) And, not to overload the subject with quotations, we may merely add that these indications of what Dr. M. Hall calls the excito-motory power, or

the reflex function of the spinal cord, and which he thinks independent of sensation, are the very same phenomena which Cuvier took for his test of the *continuance of sensation*, in reporting on the series of experiments undertaken by Flourens to ascertain how much of the cerebro-spinal axis, beginning from its anterior extremity, might be destroyed without necessarily interrupting the sensations of any part of the body. (See *Rapport sur le Memoire de Flourens*, &c. in the *Recherches Experimentales* of this author, p. 77-79.)

Dr. Hall speaks in some places of the "excito-motory system of nerves" as if they were a separate set of nerves, distinct from those of sensation, and of which the respiratory nerves are a part; and, in the experiment mentioned on the horse, it would seem that the eyelids and the verge of the anus were the only parts of the surface of the animal which exhibited the phenomena in question, and appeared therefore, according to this language, to possess nerves of the excito-motory system. But this distinction cannot be observed; for, in his own experiments on the frog and turtle, (p. 26,) in his reference to the effect of cold water dashed on the surface, (*ibid.*), and in many of the experiments of other authors already quoted, it distinctly appears that phenomena of this description may be excited, even in warm-blooded animals, through any of the nerves of common sensation on the surface of the body; so that the difference between the eyelids and verge of the anus and other parts of the surface in this respect must be one of degree only, not of kind; and, if we make a system of excito-motory nerves, we must include in that system all the nerves of common sensation, and probably all those of voluntary motion.

The only truly original observations on this subject which we have noticed in the work of Dr. Hall are these: 1. That "the whole tone of the muscular system is the result of an excito-motory function;" i. e. is dependent on an agency of the spinal cord, probably excited by sensitive nerves. If we remove the tail and rectum from a recently decapitated turtle, the sphincter retains its circular form, the tail its firmness; phenomena which cease entirely on withdrawing the portion of spinal marrow remaining within the caudal spinal canal." 2. That the effect of "gently withdrawing" the spinal cord upon this description of muscular actions is as great as that of violently crushing it." (*Lect. i.*)

But, although we deny *in toto* the originality of Dr. Hall in observing these vital actions, and very much doubt the propriety of giving them a new name, we do not mean to detract from his merit in fixing the attention of physiologists upon them, and on the agency of the spinal cord in producing them; and likewise in casting doubts on the doctrine of their dependence on sensation. Whether they really indicate sensation or not, is a point which can only be decided by observations in cases of injury or disease of the

human body; and we observe two statements in the works before us which we admit to be in favour of the supposition that sensation does not necessarily intervene between the impression on the one set of nerves and the muscular action excited, so long as the spinal cord is entire, through the other. The first is the observation by Dr. Ley of a person in whom the par vagum appeared to be diseased; the lungs suffered in the usual way, in consequence, and the patient had "evidently laborious breathing," but said distinctly that he felt no uneasiness in the chest. (P. 417.) The second is a case given by Mr. Mayo, of palsy and complete loss of sensibility in one leg, in which, nevertheless, irritating the toes caused retraction of the leg, without, as he was assured, any consciousness on the part of the patient. (*Outlines*, p. 154.) For this we have looked in vain in several similar cases, although we have seen more than once the curious phenomenon of muscles acting in obedience to sensations, (particularly in yawning;) i. e. in obedience to the spinal cord, when they were palsied to voluntary efforts, i. e. to changes originating in the brain.

We do not regard these cases as decisive of the point in question, but we must admit that, as it is only by exciting a peculiar unknown change in the spinal cord that impressions on any sensitive nerves excite sensations in the mind, so it is quite possible that these changes in the spinal cord may not be wholly prevented from taking place in cases where disease of the brain, or injury of the cord itself, so far affects the spinal cord as to prevent sensations from being felt; and that these changes, not the sensations which in the natural state accompany them, may be the causes of the sympathetic, or excito-motory, actions. Still the important fact regarding these actions, which we conceive to be established by Whytt and his followers is that, if not, strictly speaking, dependent on sensations, they are dependent on changes in the spinal cord which, in the natural state, attend and indicate sensations, and which are useful in the animal economy only as conducing to the relief or removal of the sensations which they denote.

We regard the excito-motory phenomena of Dr. M. Hall, therefore, as only further indications of the powers which are given to the spinal cord to enable it, in the living body, to minister to the functions of sensation and of instinctive and voluntary action. Dr. M. Hall states, that "the whole order of spasmodic and convulsive diseases belongs to the excito-motory division of the nervous system;" which, considering that this system must necessarily include the spinal cord and all the nerves of common sensation and voluntary action, can hardly be denied. He then goes on to explain that such diseases are sometimes excited by causes acting in the central masses of the nervous system, when he calls them *centric*; sometimes by causes acting on the excitor, or sensitive nerves, at a distance from the larger masses, when he calls

them *eccentric*; and in a few cases by irritation of the motor nerves themselves: all which is very true; but we do not see that it differs materially from the common statement, that spasms may be excited directly by injury or disease of the motor nerves, or of the motor portion of the spinal cord; less directly, and not necessarily or uniformly, by injuries of the brain; and sympathetically, in certain cases, by impressions made in the course, or still more at the extremities, of sentient nerves, and which act *sympathetically* on certain muscles. An important observation, which he has not illustrated at such length as its practical usefulness would have justified, but which did not escape the notice of Dr. Whytt, is that when spasmodic affections in disease are excited in this last way, their nature and seat are very often determined by the sympathetic actions resulting in health from excitement of the same sensitive nerves: in fact, as we believe, by the nature and the natural effects of the *sensations* which these nerves are fitted to transmit. Thus, we have sneezing from irritation of certain branches of the 5th nerve, although there be nothing to expel from the nose; coughing from irritation of certain branches of the 8th, although there be nothing to expel from the air-passages; tenesmus or strangury from irritation of the sensitive nerves of the great intestines or of the bladder, although there be nothing to expel from these viscera; and vomiting from irritation of the brain, fauces, heart, liver, intestines, kidneys, uterus, or even surface of the body, although there be nothing to expel from the stomach; because, in all these cases, the sensations which naturally and usefully prompt to these sympathetic actions are excited in an unwonted manner by these different irritations. The practical use of this piece of pathology in guiding us to the seat of disease, and to the use, or perhaps more frequently to the disuse, of remedies, is sufficiently obvious. And, in all these cases, it is now certain that the spinal cord and medulla oblongata, not the brain or cerebellum, are the media of transmission of the stimuli which ultimately excite the muscles. If Dr. Hall is desirous of applying the term Reflex Function of that organ to these cases, we see no objection to his doing so; but we cannot admit, either that we owe to him our knowledge of the principle, or that it is best expressed by ascribing it to the agency of the "excito-motory division of the nervous system."

We must reserve for a future Number the observations suggested to us by the facts, in the works before us, which belong to the last division of our subject, the Pathology of the Brain and Cerebellum.

ART. II.

Sur l'Homme et le Developpement de ses Facultés; ou, Essai de Physique Sociale. Par A. QUETELET, Secrétaire Perpetuel de l'Académie Royale de Bruxelles, &c.—Deux Tomes. 8vo. Paris, 1835.

On Man, and on the Development of his Faculties; or, an Essay on Social Physics. By A. QUETELET, &c.

Life Tables, founded on the Discovery of a Numerical Law, &c. Illustrated by a new Theory of the Causes producing Health and Longevity. By T. R. EDMONDS, B.A.—1832.

Tables shewing the total Number of Persons assured in the Equitable Society from its commencement in September, 1762, to January 1st, 1829, &c.—1834.

THE introduction and use of accurate measures form an epoch in the history of all sciences; dividing a period of obscurity, where doubt and dogmatism are perpetually at war, from a brighter period of development, in which every phenomenon is successively reduced to its natural relations. Astronomy, natural philosophy, chemistry, and meteorology, by the gradual invention of instruments, shook off the delusions of astrology, alchemy, and other sciences falsely so called; and, by the application of calculation, itself only an instrument for indirectly determining quantities and relations, they are every day attaining a further and surer possession of the laws of the universe.

The employment in medicine of the mathematics, which have been employed so advantageously in other sciences, is, in a certain sense, impracticable: to pursue the elements of the human body through the cycle of organization, and to deduce all their possible combinations and manifestations from their simple properties, is a task too high for the present imperfect state of mathematical analysis, as well as for the more imperfect means of observation yet known. It is not, however, as some suppose, because matter organized and living is subject to no law, but because its changes are difficult to seize, and infinitely complex, that the mathematician encounters insuperable obstacles in its investigation; for, in chemistry and meteorology, when dealing with inorganic atoms, similar difficulties occur: the movements of the atmosphere have not yet been expressed by a general law, "yet the curve described by a single molecule of air or vapour is regulated as certainly as the planetary orbits; the only difference is that caused by our ignorance."* It is an easy matter to predict when the earth will again occupy its present position; to foresee the courses the planets will follow; to calculate even the unseen orbits of the comets; but who can tell, *a priori*, where a passing cloud will be borne; what form an organic substance will assume; much less, what the life and actions of a human being will be? Nearly all the events on which

* Laplace.

our judgment is daily exercised, the results of our actions, and the duration of our very existence, are, considered in an isolated state, uncertain: they may terminate in several ways; but experience has established that all general facts have different probabilities of happening, and, whether the probabilities can or cannot be exactly measured, men are compelled to resolve and act on them. Observation, too, has shewn that physiological acts, when examined and measured in a great number of individuals, furnish a mean result deviating no more from a fixed standard than other physical phenomena. Statistical enumerations prove that actions which spring from hidden principles in the organization, and from accidents to which it is exposed, are constant, or constantly modified to a determinable extent. In France, the mean annual number of deaths, in the six years 1826—31, was 813,329; the maximum was 837,145, the minimum 791,125: the mean annual number of murders committed was 234, and the deviation in the whole period never exceeded one-eighth: in the five years, 1827—31, the yearly number of *accidental* deaths was 4,834, or one-thirteenth more or less. On the concurrence of how many tumultuous passions, wayward thoughts, and states in man, and of what multiplied circumstances, did each death, murder, and fatal accident depend! Yet so constant were the causes in operation, as every year to produce a result fluctuating less than the mean temperature of the atmosphere or the products of the soil.

Mankind, then, studied in large numbers, possess certain common qualities, which remain the same or vary according to determinable principles. Equal numbers of the same race have the same weight at birth, grow in the same ratio, live to the same mean age, die in the same proportion when exposed to similar causes: their nutritive, procreative, muscular, perceptive, and spiritual powers are identical, and are expressed in acts of equal frequency and duration, or differ according to ratios which science may hope to determine. The enumeration and generalization of these facts constitute what Laplace happily named "Vital Statistics."

Gioja divided statistics into six departments, each of which is ably discussed in the "*Filosofia di Statistica*." That relating to population, and the laws of its renewal, development, decline, and disorganization, comprehends the same class of facts as vital or medical statistics; and vital statistics are indisputably a part of general physiology; they form part of our medical studies; yet the great questions of population, mortality, and national health, which have now forced themselves on the attention of governments, and of every educated person, owe little of their progress to the medical profession. Professor Casper and Dr. Bisset Hawkins have the merit of writing distinct treatises on the subject; but we are compelled to admit that the work of M. Quetelet evinces a better knowledge of principles, and contains more original facts,

than either of the medical treatises. In the present article, however, restricted to the examination of human mortality, little use can be made of anything but the facts recorded in M. Quetelet's volumes. Although a distinguished mathematician, he is not well acquainted with the true principles of life admeasurement; which, contrary to popular belief, are nowhere so well understood as in England. Sweden was the first country in which returns were published of the living and the dying at different ages in the whole kingdom, for several years in the last century. In England, a census of the population was made in 1801, and has since been repeated every ten years; the parish registers of burials and deaths have been published; and, in 1821, the ages of nine-tenths of the population were determined. In France, the registration of the total number of births and deaths is complete, but no attempt has been made since 1789 to ascertain the ages of the living. The relative mortality of the French nation is unknown: the table of Duvillard, published in the "*Annuaire*," is of no more value than the exploded Northampton Table. In Belgium, an enumeration of the ages of the living was effected in 1829; but M. Quetelet appears not to have availed himself of this enumeration in the construction of the tables of mortality published in his present work. The ages, but not the deaths, of the inhabitants of the United States have been published. So, notwithstanding the capital and inexcusable error of neglecting the enumeration of the ages in the last census,* no country, except Sweden, possesses more valuable statistical materials than England; and the writings of Price, Morgan, Milne, Gompertz, and Edmonds, exhibit clearer theoretical views of the laws of mortality than can be found in the works of any modern foreign writer. Halley published the first table of mortality in the *Philosophical Transactions*, (1693;) Kerrseboom, a Dutch writer, (1733-42,) and Deparcieux, (1746,) a Frenchman, formed tables of mortality on correct principles from the lives of annuitants; and Lambert, a German, first demonstrated (1772) the general properties of these tables mathematically: so that the several European nations have each contributed something to the science of human mortality.

We now proceed to examine the best means of life-admeasurements, and to investigate the mortality in various circumstances, without at present enquiring by what particular forms of disease death is brought about, or how it may be averted.

That at all times of his changeful existence man is liable to death, and that in infancy and advancing age vitality holds a less firm tenure of its clay than in youth and manhood, long experience has made an article of popular belief. But how observe and measure the force of this mortality? or, rather, how measure the

* Drs. Price, Morgan, Milne, in the Supplement to the *Encyclopædia Britannica*, and others, had pointed out the branches of enquiry which a census should embrace.

development and decrement, the friction and loss of that life which still carries on its own operations to their natural close? It is impossible to accomplish this by the consideration of one individual, as indeed it would be impossible to find out the pressure and temperature of the atmosphere with a single globule of mercury; but, by taking masses of mankind for observation, all the elements required for accurate admeasurement will be at once possessed. Where circumstances remain the same, an equal number die in a unit of time out of a certain number living; allowing us to infer that the force of death and disorganization is equally distributed through time and space, and that, if there is any apparent irregularity, it arises from the small extent of the observation, unless some cause of perturbation has interfered. In an urn filled with black and white balls, in the proportion of one hundred black to one thousand white ones, the balls would probably not be drawn in this proportion, if only eleven or 110 were drawn; but, by going on, it would be found, on placing them in another urn, that the proportions in the end would be the same in both, and that they had been drawn in the proportion of one black to ten white balls. So, if one hundred men were singled out, each twenty or thirty years old, one or two, or none of them, may die in the year; but, if one thousand men were selected, one in every hundred would most likely die, and the probability of this proportion would augment as the operation was extended. To determine the mortality, then, it is only necessary to have observations sufficient to ensure uniformity, and to compare the two quantities, the living and the dying, the relations of which in a given time express the law of mortality, or rather of vitality; for, considered in any way, life always prevails over death with a power represented by the mass and number living.

If the population of England was fourteen millions, and the deaths in a year three hundred thousand, the absolute annual mortality would be expressed by $\frac{300000}{14000000}$: the mortality, then, may always be expressed by the number of deaths out of a certain number of individuals *living* a given *time*: the law of mortality expresses the relation of the deaths to the *lifetime*. For its determination, the living, the dying, the time, must be observed, and may be looked upon as three different but essential elements, two of which remaining invariable, the range of the third measures the force of mortality. Let the living be a million, the dying one, and the number living be constantly maintained the same by the regular accession of a new life in lieu of that expiring; then the interval of *time* between each death will indicate the force of mortality. If, in the last century, a million Swedish children, between birth and five years of age, could have been brought at once before the eye, and observed, one would have been seen expiring every sixth minute. Sometimes several would fall together, at other times there would be a longer pause; but the mean interval would be six

minutes. If, instead of children, the living were youths between the ages of ten and fifteen, the period of man's greatest potential if not actual productive life, one would die every eighty-fifth minute; and from this culminating point, where the strokes of death beat slowly, they would quicken as the ages of the observed million advanced, till at last, on the utmost limit of human longevity, one would fall every minute. The different rate of mortality at different ages, and in different populations, may thus be compared:

Mean Rate of Dying in Minutes, out of a Million living at each Age.

Between Ages	Sweden, 1776-95.	Belgium, 1829.	England, 1818-24.
0 and 5	One death every 6th*	7.99th	11.53d minute.
5 ... 10	...	60.46	80.92 ...
10 ... 15	...	97.40	99.25 ...
15 ... 20	...	79.51	69.21 ...
20 .. 30	...	57.80	52.55 ...
30 ... 40	...	52.06	43.48 ...
40 ... 50	...	38.68	35.54 ...
50 . 60	...	24.24	25.29 ...
60 ... 70	...	13.66	13.08 ...
70 ... 80	...	5.78	5.54 ...
80 ... 90	...	2.94	2.47 ...
90 .. 100	...	1.72	1.43 ...

In Sweden, out of a million children living, one died every six minutes; in Belgium, one in every eight minutes; in England, only one in every eleven and a half minutes.

Instead of the *number living* remaining invariable, if the *time* be fixed (at one year), and the *dying* be one, as in the former instance, the *living* express the relative mortality.

Mean Numbers living, out of which one Death takes place annually.

Between Ages	Sweden.	Belgium.	England.
0 and 5	1 death in 12 living.	1 death in 15 living.	1 death in 22 living.
5 ... 10
10 ... 15
15 ... 20
20 ... 30
30 ... 40
40 .. 50
50 ... 60
60 ... 70
70 ... 80
80 ... 90
90 ... 100

The differences here are very striking: the numbers result immediately from the division of the living by the annual deaths; no decimals need in general be employed, which makes it plainer for the general reader; and the number living at all ages, out of which one death takes place annually, answers to the mean duration of life; so that, if one death in thirty-seven occurs yearly, the mean age attained by the entire population is thirty-seven years. Wherefore some prefer this to the following method, in which the

* For Sweden, fractions have been omitted.

living (1000,) and the time (a year,) are fixed, while the *dying* mark the scale of mortality.

*The Number of Deaths which occur annually out of a Thousand Persons living.**

Between Ages	Sweden, 1776-95.	Belgium, 1829.	England and Wales, 1818-24.
0 and 5	85.0	65.8	45.6
5 ... 10	13.6	8.7	6.5
10 ... 15	6.2	5.4	5.3
15 ... 20	7.0	6.6	7.6
20 ... 30	8.9	9.1	10.1
30 ... 40	11.6	10.0	12.1
40 ... 50	16.1	13.6	14.8
50 ... 60	23.9	21.7	20.8
60 ... 70	49.3	38.5	40.2
70 ... 80	104.1	90.9	94.9
80 ... 90	197.4	178.8	212.7
90 ... 100	351.3	304.7	367.8
All ages,	26.8	22.7	20.3

The numbers living and dying in these scales may readily be converted into mass or weight, and the mortality may be determined by weighing instead of counting the population; for, the average weight of a boy seven years old, being 43 lbs., of a man aged forty-five years, 140 lbs., a thousand of the former would weigh 43,000 lbs., while a thousand of the latter would be equivalent to a mass of 140,000 lbs. avoirdupois, and the mass eliminated, disorganized, dying from the boys, would be 310 lbs., from the men 745 lbs., without at all altering the law of mortality; inasmuch as the relations of the mass living and dying would remain precisely the same as the relations of the numbers. Whether the numbers, or mass, or muscular or intellectual force of a nation were regarded, the relations of the existing and perishing would be expressed by the same law.

In examining the vitality of different ages, a very extensive range in the scale of intensity is perceived: man is never equally mortal during two summers of his life; and, as his being revolves through its course in minutes, years, or equal intervals, the vitality at first increases, and then decreases in geometrical progression; but, as experience has shewn, the rate of progression changes. There are three orders of progression. The first extends from birth to the second teething, when the body becomes every year less liable to death; the second prevails from puberty over manhood, when the force of mortality slowly creeps on, and grows stronger; the third sets in on the eve of old age, and with a more rapidly accumulating energy. Dr. Price pointed out these remarkable periods;† but to Mr. Edmonds the honour is due of expressing their rates of diminishing or increasing mortality in the subjoined numbers.

* From a paper by Mr. Edmonds, in the British Medical Almanack for 1836.

† Dr. Price's works by W. Morgan, vol. ii., p. 222. Till the age of five, human life, like a fire beginning to burn, is very feeble, &c. The constants may be a little too high or too low.

Numerical Values, which indicate the rate of Increase or Decrease of the Force of Mortality, in a given Time, assumed to be one Year.

Constants.	Period over which constant presides.
.676 . .	Infancy (from birth to eight years of age.)
1.030 . .	Manhood (from twelve to fifty-five years of age.)
1.080 . .	Old age (from fifty-five to end of life.)

By means of the three constants, it is easy, when the mortality of one year is known, to deduce from it that of the next; for example, if the mean mortality at the age of twenty-five be 1 per cent., the mortality in the next year (twenty-six) will be nearly 1.03, which, multiplied by the constant of the period, gives the mortality for the twenty-seventh year, &c. up to fifty or sixty; where the second merges into the third period, whose constant must then be employed. As the rate of mortality is ordinarily obtained for equal periods of ten years, it may be well to bear in mind that the mortality at the ages between twenty and fifty increases one-third every ten years: in old age it should nearly double.

Man owes nature a debt, for which he pays compound interest; the constants shew how the rate of interest varies.

The deaths in the first months after birth are, from the rude shocks to which young life is exposed, higher than the rate of infancy indicates; yet there is undoubtedly a law that would extend even to conception, and the expression of that law would perhaps differ little from the constant of infancy. The rates of dying in infancy and manhood resolve gradually one into the other; so that, probably, when the mortality is low in childhood its constant terminates at six or seven years of age; when high, at ten or twelve; and often, towards puberty, the rate of mortality seems stationary. Whether the period of manhood is in direct or inverse proportion to the extent of the period preceding, remains yet an unsolved but very interesting problem; the point of separation between manhood and old age ranges from the fiftieth to the sixtieth year in different classes of the population.

Infancy, manhood, and old age are, then, three essentially distinct periods of human life; and must not be confounded with the arbitrary and subordinate, but useful divisions of some physiologists. The ages of growth, generation, and decay have, in fact, from the time of Aristotle, attracted the attention which their paramount importance demands; nor in pathology is any other division of life so useful at the present day, either to guide the practitioner in the investigation of disease or in prognosis; yet practical writers appear no more aware than the ancients that the number of deaths at each period of life happens according to a predestined order.

A similar law of mortality presides over all organized nature, although physiologists have yet made no observations by which it can be numerically expressed. The embryo plant, the bud, the flower, grows every day less liable to death by internal debility or

external injury; before and during florescence, its existence is most flourishing; then follows old age, and life,—blossoms, leaves, and stem,—droop and decay. As millions of flowers, and untimely fruits, and wild seeds, and young plants, perish for one that is lost at a later time, so the opening eggs of insects, and the worm, the spawn of fishes and their fry, the young of birds, and the seed and offspring of all mammiferous animals, are exposed to daily risks; but acquire vital tenacity and force, till, their age of puberty and reproduction having passed over, they successively perish in old age, according to an accelerating progression. On the eve of reproduction, the human species, all quadrupeds, the birds of the air, the inhabitants of the seas, and all tribes of vegetables, have the widest prospect of life; in this spring of their existence, they are beautiful and strong; the past is short, the future is long; and man, who looks before, is full of hope. When physiologists have studied organization as attentively in time as they have in space, it will be possible to deduce the general course of vital duration and decay; for all forms of life are subject to the laws of mortality; and by them the immemorial forests themselves are renewed through successive centuries.

Applied to measure, the influence of age on human mortality, our method has shewn that this ranges on the scale one thousand from 5 to 611: no other ordinary influence is so powerful; none which we are about to examine so important. The mortality of the two sexes differs in favour of females. It is well known that for fifteen girls, sixteen boys are born. To compensate for this, the mortality of male infants is greater than that of females. On an average, one child in twenty-two is still-born (in illegitimate children the proportion is two in twenty-four); and in West Flanders, according to M. Quetelet, the proportion of still-born males to still-born females was as fourteen to ten; it was the same in Berlin. The Swedish Tables, in which the sexes are distinguished, make the mortality of males greater than that of females all through life; and this accords with several other observations. In the eighteen years, 1813-30, the mortality, according to the English returns, was greater among males than females up to puberty and after fifty; during the period of childbearing, more females died than males.

Out of 1000 of each sex living in each interval of age, there died annually:

Between Ages.	Males.	Females.
0 — 5	53.5	46.0
20 — 30	10.1	10.4
30 — 40	11.4	12.4
40 — 50	14.9	14.9
60 — 70	45.3	41.2

The observations made in Belgium present nearly similar results, according to M. Quetelet's work. From the English Annuitants, (1785-1825), Mr. Finlaison has calculated tables which make the life of females five years and a half longer than the life of males: no

physiologist can believe in the reality of this preposterous difference between male and female life; when the facts are laid before the public, it will probably be found that the well-known influence of selection interfered.

For comparing the relative mortality of different races and nations, few observations to be depended upon exist. Sir F. D'Ivernois, Mr. Rickman, Moreau de Jonnes, Dr. Bisset Hawkins, and M. Quetelet, however, have calculated that the absolute annual mortality of the Russians was, within the last twenty years, one in 27; the Prussians 1 in 36.2; the French, 1 in 39.7; the Dutch, 1 in 38; the Belgians, 1 in 43.1; the English, 1 in 51;* the Sicilians, 1 in 32; the Greeks, 1 in 30; the inhabitants of Batavia, 1 in 26; of Iceland, 1 in 30. Admitting that the data from which these numbers have been derived are correct, the conclusions usually deduced from them are false. To obtain the absolute mortality, the population at all ages is employed. Now, we have seen that the mortality of infants and old people differs enormously from that of men in the bloom of life: where individuals of different ages are therefore mixed, from any cause, in differing proportions, the result on the scale of absolute mortality varies without indicating a change of intensity; as mercury may dilate less than spirits of wine in the tube of a thermometer, and yet mark the same temperature. To obtain the absolute vitality and mean duration of a race, at one or more times of its history, a generation should be followed from birth to death; and, where this cannot be done, the problem is to obtain a near approximation to such a case.

Among the agents which keep up, and supply the consumption of life, the most essential are animal and vegetable matter, water, and oxygen; as vitality "exists on many a thousand grains that issue out of dust," it is maintained by the unceasing decomposition of aliment; it ceases when carbonic acid and aqueous vapour are no longer exhaled. Food, water, air, fire, (our bodily elements,) are the limits of population; the effects of their entire withdrawal are well known; the effects of different gradations of privation may be traced from the horrors of the Black Hole in Calcutta, or the faces of frenzied hunger on the Medusa, through prisons and dungeons, to the huts and garrets of the poor, all over the world. Of the direct effects of privation and saturation on length of life, no scale has yet been formed; but excess joined with indolence, stimulants without action, are no less pernicious, in all likelihood, than the contrary condition. Hippocrates was undoubtedly justified in contending that health is best maintained by preserving an exact proportion between food and labour; or, rather, by keeping the mean supply, though somewhat irregular, equal to the mean consumption. Mr. Edmonds says he has ascertained that the English peerage are

* Given by M. Quetelet from an early calculation of Mr. Rickman; the corrected mortality is 1 in 43.7, according to Mr. Edmonds.

subject to a high degree of mortality; this is partly owing to the number of delicate children reared, by which hereditary debility is propagated.

The effect of any external influence on vitality may be determined by either of the three classes, children, adults, or old men; and, the range on the scale being constantly greater when children are employed, they may be said to form a more *sensible instrument* of admeasurement than young men in the prime of life. But children cannot be used to determine the influence of change of climate; they remain in their birth-place; while manhood, fraught with intellect, enterprise, health, and physical independence, embodying a people's strength, alone furnishes its disposable force, extending without, under unaccustomed skies. Young men are the first merchants, missionaries, and colonists; they constitute the military force of a country. The natural resistance to their extension over the globe is shewn by the sickness and mortality of the British troops in different climates: the resources of the country by which these difficulties are met are equally apparent.

Annual Rate of Mortality per 1000.

Ireland,	15.
Ionian Islands,	26.
Bengal,	57.
West Indian Islands (Windward and Leeward),	113.
Jamaica and Honduras	155.

The mortality of the English soldier increases as he removes from the climate of his race, birth, and childhood; till at last it becomes terrible: at the age of twenty-six and thirty he is as open and liable to death in the West Indies as the old man bent with years at home.

Independently of miasmatic emanations, and other causes everywhere fatal, it is erroneous to suppose, that any climate within the temperature man can sustain is to the above extent absolutely insalubrious. A hot climate is insalubrious for a race indigenous in a temperate or cold country, particularly when carrying with them the habits resulting from the exigencies of their native climate; but to its own autochthonous race it may be a nursing place of millions. Such is the state of things in India. The climate of the Madras Presidency, so fatal to the English soldier, is found salubrious by the Native troops; who, in their turn, would most likely perish in the cold changeful embrace of the English atmosphere.

The higher mortality of the Swedes is directly or indirectly due to their cold climate; the weaklier lives eliminated in infancy leave fewer but healthier men for the period of manhood than now exist in England or Belgium.

Rate of Mortality in 1000 living at each age.

Between Ages	England, 1818-24.	Belgium, 1829.	Sweden, 1776-95.	Stockholm.
0 and 5	45.6	65.8	85.0	216.2
20 ... 30	10.1	9.1	8.9	18.6
60 ... 70	40.2	38.5	49.3	69.1

This brings us to one of the complicated influences which, acting on all ages, has a very powerful effect on the absolute vitality; namely, residence in cities. The frequent plagues of past centuries no longer desolate our cities, although they yet hover, at Constantinople and Cairo, on the borders of Europe; smallpox has grown much less frequent; and cholera alone has passed the *cordon sanitaire* which the precautions of modern hygiene have drawn around this country. Still the mortality in cities is high, and merits careful consideration.

The mortality of cities and towns in Belgium is to the mortality of the country population, nearly as 4 to 3.

	Population.	Mean number of deaths.	Deaths in 1000.
Cities and Towns	998,118	270,26	27.1
Country . . .	3066,091	652,65	21.3

The great mortality of childhood in Stockholm, compared with all Sweden, is illustrated above; the absolute mortality presents results equally unfavorable to residence in cities.

	Deaths.		Deaths.
Stockholm;* Males,	1 in 17	All Sweden, Males,	1½ in 33½
Females, 1 in 21		Females, 1 in 36.	

The mortality of six English cities, York, Norwich, Plymouth, Hull, Portsmouth, and Liverpool, has been investigated by Mr. Edmonds;† the proportion of males deceased is made rather too high, as the military and maritime population was not included in the enumeration of the living, although the deaths were registered. The absolute mortality of males stated for the cities is founded on the assumption that the registered deaths are to be increased twenty per cent.

Annual Mortality per 1000 in England and in six Cities.

MALES.

AGES	0 — 5	5 — 10	10 — 15	15 — 30	30 — 60	Above 60	All ages
England and Wales	53.0	7.2	4.9	8.8	15.3	77.7	21.5
Cities	91.4	10.8	6.2	15.2	23.2	98.0	33.6

FEMALES.

AGES	0 — 5	5 — 10	10 — 15	15 — 30	30 — 60	Above 60	All ages
England and Wales	45.6	6.6	5.2	9.3	15.2	75.3	20.5
Cities	80.0	9.6	5.3	10.1	18.5	85.6	26.6

Looking at the absolute mortality alone, the greater number of persons living in towns, between the ages of fifteen and sixty, ought to render this low, as was well remarked by Dr. Price, who dwelt with emphatic earnestness on the fatality of cities, which he maintained “operated in checking population, and preventing the increase

* Dr. Price on Annuities, by Morgan, Vol. ii., p. 233-7.

† Lancet, December 12, 1835.

of mankind." Mr. Edmonds has ingeniously proved that the mortality of children in London has progressively diminished for the last century; but no practitioner who has had much experience among the poor will be surprised to find that still twice as many children perish in London as in the country.

They are chiefly young persons from the country, between the ages of fifteen and twenty-five, when emigration into cities is greatest, that furnish the Paris hospitals with cases of typhus fever: out of 133 patients observed by Louis, only four were born in Paris.* Twenty-eight out of sixty-three patients who had been at Paris less than ten months, died; while, of fifty-six who had lived there longer, only sixteen were lost. A city is a foreign climate to a countryman.

The method of life-admeasurement we have been examining admits of innumerable applications; and, notwithstanding its extreme simplicity, is easily misunderstood and misapplied. A few errors, common and obvious, but supported by the authority of respectable writers, will shew the present state of popular knowledge on the subject, and may serve as beacons to the younger student.

In estimating the influence of any cause which can but slightly affect vitality, the great disturbing influences must not be allowed to interfere: for instance, in examining the effect of two climates, or external conditions, little differing from each other, individuals of the same age, sex, riches, and residence, whether in cities or the country, should be compared. In passages like the following, this is lost sight of, where the mortality of men in the prime of life and this country is pronounced low, when less than that of men, women, infants, and old people in the city of Rome. "So great was the care taken of prisoners of war in this country, that, in the year 1813, the mortality amongst them was only one in fifty-five; not one half of what occurs to the whole population of Rome, although these persons were labouring under most of the privations which embitter or enfeeble existence!"†

In the *Précis d'Anatomie Pathologique* M. Andral states, (t. i., p. 428,) "that at the age of four or five years, three-fourths of the children who perish, die of tuberculous affections, &c. *At this age, therefore, more than in the years preceding, all irritation, every congestion is to be feared, &c.*" The practical directions following this supposition are entirely erroneous; the relative frequency of tuberculous deposits in the dead body increases from birth to the fourth or fifth year:‡ but irritation, congestion, and all fatal diseases become less frequent and dangerous from birth to the second teething; nor has any exception to this law ever been observed. It is unnecessary to give further examples of the practical errors into which distinguished medical writers have been induced, by want of

* Louis, *Recherches sur la Fièvre Typhoïde.*

† Medical Statistics, p. 160.

‡ Dr. Clark on Phthisis.

acquaintance with the general law according to which human life wastes. M. Louis appears to have progressively invented his numerical method, and has necessarily fallen into some errors, from which a little research would have kept him free; for the “*méthode numérique*” is only a particular but most important application of principles well known in this country, at least since the time of Dr. Price, and explained a century ago by Deparcieux in France. M. Louis was evidently at first unacquainted with the law of mortality; but his applications of the numerical method were rendered accurate by the severely scientific character of his mind. He is the first who applied numbers with success in practical medicine.

Facts and figures were never more justly appreciated by the legislature of this country than in the present day: orators make their speeches persuasive by force of arithmetic; never were so many statistical returns procured; yet the elementary principles of statistics are far from being so extensively diffused in higher quarters as is desirable. Lord Brougham, in his last speech on Education,* entered into an elaborate calculation relative to the extent of instruction in different parts of England; assuming that the proportion of children was the same in London and Lancashire as in the rest of England; and, on this assumption, contradicted by calculations made in the last century, and by the enumeration of 1821, a weighty argument and a legislative enactment were urged. It is remarkable that no noble lord put his lordship right on a fact so familiar.

M. Villermé, from a comparison of the deaths at different ages in the marshy departments of France, lately announced “as a fact hitherto unknown, that the fatal influence of marshes is chiefly felt by young children.” To confirm this statement, he divided 10,000 deaths in the manufacturing districts, and the same number in the agricultural counties of England, into those who died under, and those who survived their tenth year, but died before the fortieth; and, finding that the proportion of children buried in the marshy and manufacturing districts preponderated, inferred that the liability to death among children was increased to the same extent. All these calculations, founded on the *deaths alone*, admit by hypothesis that the proportion of children to the rest of the population *living* during the *time* the *deaths* happened, was the same in all the places compared. Here this was not the case; for the children living in the Island of Ely and the increasing manufacturing districts are more numerous than in the agricultural counties; so if the deaths were more numerous, the *living* were also more numerous, and the relation does not indicate a mortality so great as M. Villermé’s method implies. Such is an example of the more common errors of writers in the “*Annales d’Hygiène*,” it is, however, only just to observe that M. Villermé was probably misled by the official tables

* Speech of Lord Brougham in the House of Lords, May 24, 1833. Ridgway.

in the third volume of the English Population Returns for 1831; where, in defiance of every principle and all authority, tables of mortality for each county were professedly deduced from the burials of a rapidly increasing population, and the proportions living, although known, were entirely overlooked. These tables assume that the proportion of children and young men was the same in the last century as in 1831, although the number of registered baptisms was only 237,029 in 1801, and 382,060 in the year 1830; increasing so rapidly as, in the course of thirty years, to raise the total population of England from about eight to fourteen millions.

M. Quetelet has formed Tables of Mortality for Belgium, shewing the number dying every year out of 10,000 born, deduced from the deaths of males and females in town and country; but, as these tables take no account of the living, which, instead of remaining fixed, were ever changing, they are open to the objections before stated that stamp all such tables with inutility. M. Quetelet's tables can no more be considered Tables of Mortality for Belgium, than the tables calculated by Dr. Lombard, M. Heyer, and Mr. Rickman, are Tables of Mortality for Geneva and Essex: he has besides neglected to give the proportions living and dying at each age, and of each sex, in town and country, from which true tables of mortality may be formed.

In the assurance offices of this country many millions of pounds sterling depend on the duration of human life, and on the law of mortality. The transactions in which this money is concerned are carried on by two parties; the assurers, proprietors of offices perfectly acquainted with the numerical and commercial details of the question, and the public, who as a body know less of the law of mortality than of almost any other matter in which they are directly interested. The consequences have been that assurance companies, with little *certain* capital, speculated and levied enormous profits on the public hope and imagined foresight, which, unguided by knowledge, became ruinous credulity. Many of them divided the contributions, which from the construction of their tables, accumulate in the first years; and, in no long period, were found more mortal than the lives they promised to assure. Confiding families were overwhelmed with ruin. Many of the present assurance societies deserve the entire confidence of the assured: it is not, however, our intention to discuss their respective merits; we only wish to notice their tables of mortality, made on what they call the *safer* side. If, out of one hundred persons assured, at the age of forty, *twenty* died before the age of fifty, speculators ought to pay for the chance of having 1000*l.* at death, occurring during that period, 200*l.*; for there are twenty chances in favour of their receiving 1000*l.*, and eighty chances against their receiving it: on the contrary, if only ten in one hundred die in the same time, the deposit ought only to amount to 100*l.*, for it is ninety to ten that

they live, and that the 1000*l.* are lost.* Again, if from the fortieth year of life, men on an average live twenty-eight years, to receive 1000*l.* at death they ought to pay a smaller annual sum than if the average duration of after-life was only twenty-three years. These examples shew that it is advantageous for assurance offices to employ tables underrating the probability and duration of human life; accordingly, they apply the numbers of the Northampton Table, professing only to shew the mortality of an entire population, poor and rich, and representing *that* much higher than was ever observed: they apply, we repeat, this *safe* table to determine the mortality of men in the middle classes, holding the most durable tenure of life; and, besides this, exclude all the sick class, out of which the greater part of the mortality indicated in their table necessarily takes place. If, in the English population at the age of 40—50, fifteen in one thousand die, the one thousand include among them at least thirty constantly sick; out of whom the deaths in the tables generally take place: therefore, by excluding the sick, and by means of a medical certificate,† the mortality among the assured falls at first immeasurably short of that indicated by the tables of mortality. From the tables published by the Equitable Office, it appears that, while among those *selected* at thirty, the mortality between forty-five and fifty years was one in fifty-eight, the mortality at the same age of those who were *selected* at forty-five, was only one in ninety-two; a vast difference in favour of the office.

These facts in no way prove that the assurance of life is injudicious; we signalize them as glaring misapplications of the known principles of life admeasurement: a general class of men indiscriminately taken, healthy and sick, are presumed to indicate the mortality of another class from which the *sick* and *feeble* are excluded.

* No account is here taken of the rate of interest, which is taken at 3 per cent.; as the lower the interest of money is assumed to be, the greater are the profits of the assurance offices.

† Before granting a policy, the assurance offices address a schedule to some medical practitioner, requesting his confidential opinion on the state of the applicant's health, &c. Of late there has been some controversy on the question, whether the Directors, by whom professional opinions of this kind are demanded, should pay the accustomed fee; and, in the eyes of all, except one of our contemporaries, it has appeared evident that merely *mercantile* bodies have no right to obtain a deliberate, written, professional opinion, gratuitously. Let us add, that the Offices, by means of this opinion, and the selection they thus exercise, realise an enormous profit. According to their tables and rates, a person aged 40, to insure for £100, should live for 23 years, and pay 3*l.* 8*s.* annually. Now, by means of the medical opinion, and the selection, the assurance offices only grant policies to persons who live and pay, on an average, 28 years. So that, if a person insures his life for £5000, they gain nearly £1000 more than is sufficient to afford a fair remuneration on their capital. It, therefore, does appear to us fair, that they should pay the medical fee. In truth, the assurance offices have taken advantage of the good-nature, and, we must confess, of the ignorance of the medical profession: but we hope the many honorable men connected with these institutions will no longer attempt to perpetuate an imposition which the medical profession is bound, in justice to itself and the public, to resist.

In the case of annuities, the selection is in favour of the annuitants; and, as the proportion of sick increases up to old age, the difference at this period becomes very great between the deaths out of 1,000 taken indiscriminately from the general population, and one thousand from which thirty or forty per cent. of sick and ailing have been excluded. Through inattention to this fact, the nation recently lost several hundred thousand pounds by granting annuities on the lives of old men and women, selected by speculators on the Stock Exchange.

ART. III.

Outlines of Human Pathology. By HERBERT MAYO, F.R.S. &c., Professor of Anatomy, Physiology, and Pathological Anatomy, in King's College, London; Surgeon to the Middlesex Hospital.—London, 1836. 8vo. pp. 595.

THE plan of this work differs considerably from that of others in our language, bearing the same or a similar title. The “Elements” of Dr. Parry, the “Principles” of Dr. Pring, and the “Outlines” of Dr. Alison are chiefly occupied with enquiries into the general laws of morbid phenomena, without any further reference to the lesions of particular organs than was thought necessary to the purposes of illustration; but Mr. Mayo’s treatise is a summary recital of the changes in the several parts of the body, and of their symptoms. The absence of etiology and therapeutics, at least as constituent parts of the whole work, distinguishes it from our systems of practical medicine and surgery; and in this respect, if we do not mistake, it stands almost alone, or at all events has had no predecessors of importance. The French have many works devoted to pathology and diagnosis only; but it would seem to have been always difficult to our countrymen to divest their minds of the practical applications of knowledge; and we confess that we should be sorry if they lost this their predominant attachment to objects of immediate utility.

We cannot say that we approve of the arrangement which the author has thought proper to adopt in the treatment of his subjects. It may be urged indeed that this is a matter of but slight moment, and that it signifies little whether the nature of inflammation and carcinoma is discussed before or after the account of periostitis and osteo-sarcoma; an opinion which we should not perhaps dispute, if the reader were supposed to possess a general acquaintance with the topics, and to look to the work merely for new facts and speculations. If he is already familiar with the elements of morbid changes, it matters not how composite may be the diseased structure first submitted to his attention, and it is even doubtful whether the former need be introduced into the work at all. But Mr. Mayo’s “Outlines” are designed quite as much for students as for profi-

cients, and therefore we contend that the order of the topics ought to have been from the simple to the more complex. If the author, again, had limited himself to the description of the alterations in the organs, without noticing the mode of their production, it would have been quite indifferent where he commenced: but his design was not so scanty; even from the commencement he attempts, and often with good success, to unravel the web of disease, though the texture of the threads must remain a mystery till the reader has advanced pretty far into the volume.

In all ages it has been the object of medical speculators to resolve the multifarious phenomena of disease into a few elementary forms, an object no less desirable in a practical than in a philosophical point of view. Some of the alleged pathological elements have been mere hypothetical ingredients of morbid changes, and others have been nothing more than certain characters common to the manifestations of disease in different parts. *Strictum* and *laxum*, *sthenia* and *asthenia*, illustrate the latter; while the former may be exemplified by the fancied depravations of humours, the supposed collisions between molecules of different shapes, and the unseen spasm of capillaries. The medical philosophy of later years acknowledges neither symptoms nor imaginary states of the solids and fluids, as the components of disease; it allows of none but such as are demonstrable by anatomical or chemical analysis, though it confesses that there are but too many specimens of disease, the analysis of which is at present impracticable. Strictly speaking, not a single morbid *element* has as yet been discovered, though we have certain *proximate principles*, such as inflammation, hypertrophy, tubercle, cancer, &c. These may have their seat in organs very distant from each other, and differing greatly in texture, but they have characters which enable us to recognize them wherever found, and however modified by their locality. We are of opinion that the student should acquire a knowledge of these simpler forms, before he is introduced to the combinations in which they occur in the lesions of particular organs. How little prepared is he for understanding the complicated alterations in chronic peritonitis, for example, unless previously instructed in the nature of inflammation and tuberculous deposition! How can he appreciate the difference between the cadaveric redness of mucous membrane, and the marks of true gastritis, if he has previously heard nothing of congestion as distinguished from inflammation?

These very obvious considerations, we think, might have alone been sufficient to deter Mr. Mayo from the plan followed in his work. It is indeed surprising that, accustomed as he is to view subjects in their philosophical relations, he should have adopted an arrangement based as little upon anatomical and physiological, as upon pathological principles. Treatises upon special anatomy very properly commence with the bones and muscles, because the situation of parts respectively to each other is the principal object of

instruction, and, as those organs occupy the greatest space in the fabric, they are the most convenient objects of reference. It would be no less absurd to define the course of rivers and roads, and the situation of towns in a country, before describing the country itself, than to attempt to point out the direction of arteries and nerves, and the locality of viscera, before the parts traversed by the former and containing the latter have been made known. But the position of organs is of comparatively small concern to pathological anatomy, which regards the parts individually, and with reference to their structure, and therefore might be expected to commence its researches in the tissue which is most widely diffused, and indeed essential to the very existence of every part of the frame. Whatever other tissues enter into the composition of a part, they must derive their support from, and throw their incumbrances upon the capillary system, and their condition is rarely altered without implicating this system, if not actually owing their changes to it. Every disease which leaves traces in a part leaves them in the quantity or quality of the blood, in the nutritive, secretory, and absorbent processes; and, with these textural conditions and processes, what part is more intimately connected than the capillary system? Here then, we think, there is every reason for commencing pathological enquiries; and here, accordingly, we shall commence our survey of Mr. Mayo's labours. Only seven pages and a half are devoted to diseases of the capillaries; certainly not a very liberal allowance to such subjects as Anæmia, Hyperæmia, Inflammation, and the production of Serum, Lymph, and Pus. Although the reader may be contented with learning just as much as has been absolutely ascertained upon these matters by observation, without engaging in speculative controversies, and may not expect that their phenomena should be viewed in relation to other parts of the system, he will yet be disposed to wish that this section had been rather more ample.

The following is all that is said of hyperæmia.

“*Hyperæmia*, or congestion. The minute vessels may be unusually distended with blood, either through obstruction upon the veins—as in a limb to which a bandage is applied previously to venesection—or through strong action of the heart, as upon the skin during the hot stage of inflammatory fever; or, finally, through a change in the state of the capillaries, enabling the blood to enter them with greater facility and in greater quantity than before. The cases in pathology in which the vessels display a lowered tone, or yield a freer passage than natural to the blood, are referrible to three heads. 1. Irritation, as, for instance, in the suffusion of the conjunctiva, when a foreign body gets within the eyelids, or in the state of the mucous membrane of the small intestines in Asiatic cholera. 2. Vascular nævi, or, as they are often termed, erectile tissue. 3. Some kinds of malignant tumours.” (P. 426.)

In an elementary work upon pathology, we have good reason for complaint if the author does not explain the meaning which he puts

upon such a word as irritation, especially when so large a class of disorders has been referred to it by some writers. Andral is for banishing inflammation from our vocabulary; we should certainly be heartily glad to get rid of irritation, the indiscriminating use of which in medical treatises has often produced in our minds the *feeling* which the word denotes, when it has failed to summon up any distinct *idea*. How can the student escape perplexity when sometimes it would appear to signify that congested state of the capillaries which is immediately traceable to an external agent, as a poison, or a chemical or mechanical injury; sometimes a mere derangement of sensation; sometimes a slight shade of inflammation, as in the complications of febrile diseases; sometimes a state antecedent to but not constituting congestion, as in the old saying "*ubi irritatio, ibi affluxus*;" sometimes a condition of the nervous system incident to hysterical, neurotic, and debilitated subjects; sometimes an exalted vitality, as in the writings of the physiological pathologists; and sometimes is the synonym of simple vital action, correlative with the irritability of Glisson? Let us suppose a student reading the passage above cited. Those species of congestion which are occasioned by obstruction and by an excessive supply of blood from the central organs of circulation, will be intelligible enough; and when he comes to the description of that state in which the vessels "display a lower tone or yield a freer passage than natural," a state which will be at once perceived to be a matter of inference only, because he has learnt in a preceding page that the very existence of such vessels is only inferred, (like the ultimate fibre of Haller, "*invisibilis est ea fibra, mentis solâ acie distinguitur*,") he will be prepared for the absence of any account of the mechanism whereby this change in the vessels is effected, and for finding nothing more than a classification of the specimens of it. Of the three heads of arrangement, irritation he finds is the first. Meeting with no explanation of this term, and perhaps even ashamed of having no definite idea connected with a word in such common use, he instinctively passes on to the exemplification, and is gratified to find it of so palpable a nature as the redness of the conjunctiva provoked by a foreign body. But his satisfaction is short-lived when he arrives at the next instance, viz. "the state of the mucous membrane of the small intestines in asiatic cholera." *Ignotum per ignotius*,—he turns back to the section on the pathology of the alimentary canal, where he finds it laid down that an invariable appearance in the bodies of persons who have died of cholera, is a pink coloration of the mucous membrane of the intestines, equally distinguishable from the redness of inflammation and the "dark vascularity" characteristic of venous congestion. But still he is at a loss to perceive what resemblance this hyperæmia bears to that produced by a foreign body applied to the conjunctiva. We fear that his difficulty will scarcely be cleared up by reading the following sentence. "When the intestines have been

under the *irritation* of that disorder (diarrhœa) for some hours, they have directly passed into the state of cholera." Is it meant that the diarrhœa irritates the intestines? Scarcely; since the diarrhœa is itself a disorder of the intestines. Does it mean that the irritation which causes or coexists with the diarrhœa, passes into the state of cholera? If so, the student having learnt that the state of the intestines in cholera is an instance of irritation, learns in addition by his reference that it is a species of congestion, and that the irritation of diarrhœa passes into the irritation of cholera; but he still remains in the dark as to the nature of irritation, and consequently as to the analogy between the hyperæmia of an irritated conjunctiva, and the hyperæmia of the intestines in cholera. True, they are said to be instances of hyperæmia caused by a change in the capillaries themselves, but so are "vascular nævi," and "some kinds of malignant tumours."

The omissions in the above passage are scarcely less striking than the obscurity arising from the use of an undefined term. To which of the three heads are we to assign the congestions occasioned by gravitation, and by the sedative influence of cold, or those which occur in scorbutus, typhus, and other disorders accompanied by increased fluidity of the blood?

"*Inflammation*. In inflammation there is an afflux of blood to a part, and something more. Not only are the minutest vessels in the inflamed part larger than before, and hold more blood, but the blood which they contain, in some is perfectly stagnant, in others moves very slowly; and where it is stagnant, or nearly motionless, is changed in quality, the distinction of a transparent liquid and particles suspended in it being lost. These appearances, which have been observed by many, I have repeatedly produced by irritating the membrane of the foot of frogs under the microscope." (P. 426.)

The author has here exhibited very clearly and forcibly the true nature of inflammation. We do not blame him for having avoided the controversy respecting increased or diminished action, which may perhaps be considered now at rest. The advocates of increased action grounded their theory upon what was accidental rather than essential to the inflammatory state; viz. the throbbing arteries, the increased heat, and the swelling of surrounding parts, phenomena which certainly prove an increased action, but not in the vessels under dispute. The broad facts of inflammation are certainly the stagnation of the blood, and the consequent alteration of its qualities, but we could have wished that Mr. Mayo had pointed out some of the instances in which it is difficult to determine whether they ought to be referred to mere congestion or to inflammation. The same lesion is not unfrequently designated by one observer as congestion, and by another as inflammation, because the former limits his idea of inflammation to a condition in which there is not only an inordinate quantity of blood, but in which certain products have been separated; while the latter regards an accumulation of

blood, provided it does not clearly result from venous obstruction, a sufficient proof of inflammation. The student should have been instructed in the discrimination of the epithets *active* and *passive* congestion, the former being confined to congestion produced by arterial plethora, the latter to that resulting from venous plethora, or from a preternatural fluidity of the blood, or as some suppose from debility in the extreme vessels. Active and passive inflammation, agreeing in the changes of the blood, but differing as to the condition of the neighbouring parts, and the disturbance of the general system, should have been at least noticed; also the chronic species, as differing not only in the time occupied, but likewise in the nature of the products.

We find no mention, either in the present section or throughout the work, of what is called specific inflammation. No notice is taken of the different phenomena of inflammation according to the part invaded, or how the composition and texture of the latter may influence the tendency of the process to spread, to subside, and to afford particular products. In no part of the book is there any notice of mucous or of serous inflammation, as such, though inflammations of particular portions of mucous and serous membranes are of course described under the pathology of the organs in which they occur.

Besides these omissions of an anatomical character, we might complain of the absence of any remarks upon the connexion of the symptoms of inflammation on the one hand, and of congestion on the other, with the physical alterations, or upon the difference between the symptoms of each of these states, or upon the different conditions of the whole system in which they respectively occur. Space has been found for the semeiology of a great number of diseases, and many pages are occupied with histories of cases, some of which might very well have given place to observations which would have been more in keeping with such a work as "*Outlines of Pathology*," and which the author was very capable of writing.

The circumstances under which serum is separated from blood while circulating, are very ably described. In barely more than a page we find condensed nearly all that is certainly known of the pathology of dropsy. We cannot forego the pleasure of presenting our readers with this passage.

"1. *a.* The most frequent cause of effusion of serum is retardation of the progress of the blood in the veins. The effect in this instance is perhaps entirely of a mechanical nature. The capillaries being gorged, the thinnest part of the blood transudes through their coats. When the axillary vein is compressed by enlarged and indurated lymphatic glands, serum thus escapes into the cellular membrane, or the limb becomes œdematous. When the upper vena cava is obliterated by inflammation, or obstructed by the pressure of a tumour, the face, throat, and arms are loaded with anasarca. When the inferior cava is obstructed, the legs become anasarcous. When the cavity of the femoral vein is obliterated

by inflammation, the same result takes place. When the hepatic circulation is obstructed by thickening of Glisson's capsule, abdominal dropsy, or ascites, follows. When the inferior cava is compressed near the diaphragm, by induration of the pancreas or adjacent lymphatic glands, dropsy with anasarca of the legs ensues. When there is valvular disease of the heart, allowing the stroke of the left ventricle to tell backwards and impede the propulsion of blood through the lungs, and even its passage through the right side of the heart, the lungs and the whole body are liable to become infiltrated with serum. Finally, the pressure of ovarian tumours, or of dropsy, on the iliac veins, will render the legs œdematous.

"*b.* It is probable there may be a condition of the blood—such as, for instance, extreme attenuation from repeated hemorrhage—which may dispose it to part with serum readily, and so to give rise to œdema. A thin blood and a weak heart are capable of occasioning anasarca and dropsy.

"*c.* Chronic inflammation of the kidney, impeding the secretion of urine, may be productive of anasarca. This is one of the causes of the anasarca which follows scarlatina. Dr. Bright discovered and described the influence of this cause in determining effusion in persons who have lived intemperately; and showed its connexion with albumen in the urine.

"*d.* General effusion of serum partakes sometimes of an inflammatory character. In young and not otherwise unhealthy persons, œdema of the legs, of the arms, and face, with ascites, will sometimes supervene after exposure to cold, being attended with slight tenderness of the swollen parts, and often with albuminous urine.

"*e.* Serous effusion is a constant attendant of ordinary inflammation, exuding equally into the interstitial cellular membrane, into the cellular tissue of organs, upon serous and mucous surfaces, and upon the skin. Its source in these instances is again probably mechanical, and attributable to the obstruction of blood in the inflamed capillaries. The softening common to all fleshy textures at the outset of acute inflammation is in part at least produced by their infiltration with serum." (P. 427.)

The following is the sum total of what the author thinks necessary to say upon Hunter's adhesive inflammation.

"Lymph, in its chemical composition, resembles coagulated albumen or the fibrin of the blood. It is probably the latter element exuding in a liquid state, and then coagulating. The colourless part or size, which in two or three minutes separates and floats upon the surface of liquid inflamed blood, Hewson has shown to be *fibrin unusually attenuated*; but if there exists in inflammatory blood a portion of unusually attenuated fibrin, and if that fibrin can be shown to have a disposition to separate from the rest of the blood, and if its tenuity would render its mechanical escape from the containing vessels the more facile, and if from vessels in inflamed parts a liquid fibrin is found to escape, we seem to be already in possession of all the elements of this phenomenon." (P. 428.)

We are scarcely satisfied with this somewhat off-hand mode of treating such a subject. Is this attenuated state of the fibrin placed beyond doubt? Do not many physiologists maintain that

there is a stronger aggregation between the particles of inflammatory than of ordinary fibrin? But, without disputing the truth of the facts thus assembled, we cannot agree with the author in considering them to be *all* the elements of the process in question, so long as we are ignorant whether inflammatory blood taken while flowing from a vein is identical in quality with blood stagnant in inflamed capillaries, or so long as it remains unexplained why lymph is sometimes effused in preference to serum, though the latter has greater tenuity, and consequently greater facility of escape, and why this process occurs more readily in some tissues than others. We should have been glad to have known whether Mr. Mayo believes that the difference in the liability of tissues to this occurrence is as great as has been generally represented. To us it has appeared doubtful whether the difference is not rather apparent than real; whether in fact the tendency to effusion of lymph is not more equal than has been supposed, while the *traces* of the effusion are more conspicuous and permanent in some parts than in others, in consequence of their mechanical relations, and the nature of their normal secretions. Is it improbable that fibrine is separated as frequently on mucous as on serous membranes, but that it escapes observation partly because it is confounded with mucus, partly because it is removed with other substances that traverse these membranes, and partly because *adhesion*, one of the strongest evidences of the effusion, occurs with difficulty in parts where the contact of opposite surfaces is infrequent, and at all events subject to continual interruption? The portions of the mucous system in which we trace the effects of fibrinous secretion are precisely those in which either the agents that remove the secretion are feeble, or the surfaces approach each other very closely. Such are the adhesions and obliterations of the lachrymal and biliary ducts, the ureters, and the urethra, and the consolidation of the pulmonary tissue by coagulable lymph effused in the air-cells. Lymph may not only be effused upon mucous surfaces, but may become organized as upon serous; examples of which, had they been duly examined, would not have been so frequently mistaken as they have been, for detachments of mucous membrane.

The formation of pus is treated of rather more at length than the last subject. After noticing the similarity in form between the globules of pus and those of blood, and the greater size of the latter, the author introduces an extract from M. Gendrin's treatise, containing the celebrated observation of the process of suppuration in a frog's foot placed under the microscope, and concludes the section with the following passage.

"The observations which I have quoted from M. Gendrin, when taken in connexion with the facts previously stated, simplify the theory of inflammation, and satisfactorily explain the alliance of all its leading phenomena. The initiatory effusion of serum and of lymph, dependent upon the visible obstruction of the circulation—the lymph the same sub-

stance with attenuated inflammatory fibrin—the consequent occasional mixture of blood with lymph—the formation of pus secondary to and later than the secretion of serum and lymph, being the result of protracted inflammatory action—the solid particles in pus, although larger, yet of the same remarkable figure with those of the blood, and doubtless the same enlarged—the occurrence of blood in pus mixed with it in streaks, or generally diffused through it—the organization of lymph by extension of vessels, some at first containing pus, others a thick red liquid; and lastly, inflammatory gangrene proceeding from the vessels being in certain cases irrecoverably obstructed, are phenomena, which may be declared to be now grouped under one law.” (P. 431.)

It cannot be denied that this grouping of the phenomena is executed in a very masterly manner; but we regret that in his anxiety to present a connected view of the facts the author should have omitted one which is certainly of some importance, we mean *ulceration*. Was it that he found some difficulty in exhibiting the relation of this phenomenon to the rest? A person moderately acquainted with the subject, would discover hints of the possibility of such a change in certain parts of M. Gendrin's description, in such phrases for instance as “the eschar begins to detach itself,” “solution of continuity;” but whether a student would identify these changes with ulceration is more doubtful perhaps, than whether he would recognize in “the organization of lymph by extension of vessels” the familiar process of granulation. Ulceration having been particularly associated with absorption since the time of J. Hunter, we thought it just possible that the author might have chosen to treat of it under the absorbent system, or the veins, but in these and other parts of the work our search was fruitless. If the reader wishes to know something more of gangrene than is contained in one of the clauses of our last quotation he will be disappointed; but why it was less incumbent on the author to enumerate the different circumstances under which gangrene takes place, than those which influence the effusion of serum, we do not profess to understand.

We have thought it requisite to notice these omissions; but, that we may not be deficient in justice, we shall here introduce a short extract from the introduction to the work.

“In the present treatise, nothing so ambitious has been attempted as a complete discussion of the subjects above enumerated. The author's aim has been, to arrange in a perspicuous order, and to describe with as much brevity as is consistent with clearness, the morbid affections to which the different organs of the human body are subject. This, with some accidental omissions, and with the intentional omission of those subjects which are commonly made isolated studies, he trusts has been accomplished to an extent that may render the following pages not without their use.” (*Introduction*, p. xxvii.)

Whether the omissions which we have pointed out belong to the accidental or the intentional, it may be difficult for the reader to determine.

In accordance with what we have stated to be our opinion respecting the proper order of subjects, we shall now, having considered Mr. Mayo's remarks upon inflammatory products, pass on to the other morbid deposits. Tubercle is discussed under the diseases of the lungs. The account given of this substance is brief, but comprehends nearly all its principal characters, and the more important of the changes which it undergoes. The author evidently follows M. Andral very closely, but, when he says that the deposition "is unattended by symptoms of general or local inflammation," he removes farther from the doctrines of the physiological school, than even that eclectic pathologist who concludes his admirable chapter on tubercle with the following words: "*dans l'état actuel de la science le tubercule doit être considéré comme le resultat d'une modification ou perversion de sécrétion, que précède ou accompagne souvent une congestion sanguine active.*"* If we state that Mr. Mayo believes tubercle to be unorganized, that it is softened by mere infiltration with fluid from the tissue where it exists, and that the grey granulations found in the lungs are not tuberculous, we have given his opinions on the points which have been most disputed; but, with regard to the last mentioned of these, we doubt whether the most experienced pathologists of the day would agree with him in saying that Andral has *proved* that the grey bodies in question do not lead to true tubercles, and that they are the effects of inflammation in a few of the air-cells. That these formations are limited to tuberculous subjects, and that they become opaque and identical with tuberculous matter, was taught by Laennec, and is maintained by Louis. In one of his most recent publications the latter author, when speaking of the uniform complication of tubercles with chronic ulceration of the small intestines, declares, "*je n'ai pas vu un seul sujet emporté par une maladie chronique, et ayant des ulcerations dans l'intestin grêle, qui n'eût des tubercules dans les poumons, ou des granulations grises demi-transparentes, ce qui est la même chose.*"† Dr. Carswell has explained the discrepancy among anatomists upon this subject, by shewing that tuberculous matter is often mixed with the natural and morbid secretions of the part; thus in the lungs the semitransparent appearances may be due to the admixture of inspissated mucus; and, in the peritoneum, to the presence of coagulable lymph.

Directed by a passage in the Introduction, we turned to Diseases of the Breast for the author's views of Carcinoma, but were disappointed to find that he had thought proper to avoid any general discussion of this formation; his reason for the omission being that Mr. Kiernan's researches have not yet been published. We entertain the greatest respect for the powers and performances of that

* *Precis d'Anat. Pathol.* I. 438.

† *Examen de l'Examen de M. Broussais*, p. 18.

excellent anatomist, and promise ourselves a great increase of pathological knowledge by the continuance of his labours; but in the mean time it is not unreasonable to ask whether Laennec, Abernethy, Burns, Cruveilhier, Andral, and Carswell, have done nothing towards defining the characteristics of carcinomatous disease, or in pointing out the similarity of its progress in different parts, its modifications in form and consistence by tissues and organs, its arrangement, the localities which it prefers, &c.? Unless Mr. Mayo thinks (and he tells us that he is "in some degree acquainted with Mr. Kiernan's unpublished views,") that students would have by and bye to *unlearn* what has been taught by the pathologists enumerated, he ought surely to have made them acquainted with the progress already made in this investigation. Instead however of any such treatment of the topics as we had reason to expect, we were obliged to content ourselves with the external characters, and the general anatomical appearances of carcinoma as observed in the breast.

"This disease, which forms forty-nine fiftieths of malignant diseases of the breast, when examined after death, presents three distinct morbid appearances, which are often met with combined in the same part, although sometimes, but rarely, they are met with separately. *a.* A tumour, the whole of which nearly resembles cartilage in structure, dense, of a greyish or blueish white, with a slight approach to transparency, elastic, cutting with the same sound as cartilage. *b.* A tumour, cutting crisply, like the texture of an unripe pear, of a grey colour, succulent, with yellowish or whitish lines, containing an inspissated substance, probably tubuli lactiferi. *c.* A softer texture, more vascular, or red with partial vessels, and succulent, not without some crispness when cut through, when squeezed giving out fluid partly serous, partly opaque and white." (P. 566.)

Some cases are related illustrative of this distinction, to which succeeds an excellent account of the progress of the disease in the *mammæ*. The remarks upon an important practical question are very judicious.

"After amputations of a scirrhus breast under the most favorable circumstances, that is to say, when the operation is performed at the earliest period at which the structural character of the disease has declared itself in the gland, no other part being yet invaded by it, and the diseased structure being entirely removed; I believe, that, in ninety-nine cases out of a hundred, the disease returns either in the cicatrix, or in the axillary or subclavian glands. The operation therefore cannot be performed with any reasonable prospect of saving the patient eventually from the disease. But the period of the return of scirrhus varies from six months to two or three years, or even longer. The interval may be one of health and hope; and even when the disease reappears, it does not in general return in a character of such formidable suffering as in its ordinary course it presents. The worst suffering in cancer arises from the destructive ulceration of the original scirrhus: the changes which supervene in the secondary scirrhus, whether in the cicatrix or the lymphatic

glands, are generally mild, compared with the former. The constitution likewise sinks more rapidly on the return of the disease, being by that time more completely undermined than at the first invasion of scirrhus." (P. 573.)

We now turn to the pathology of the blood. Upon this subject we are not presented with any original information; we do not however mention this by way of complaint, but rather because the introduction of observations peculiar to himself would have been an excuse for the defective manner in which the author has compiled this section. We have been struck on more than one occasion by the implicit reliance which he places upon some one authority, and have already noticed his passing by a whole host of distinguished pathologists, and leaving a subject all but untouched, because a favorite investigator has not laid it before the public. In another place we find him delivering doctrines on the faith of a single individual, without hinting that many able investigators have formed opinions of a very different nature.

"*Inflammatory blood* is characterized by a colourless *crust* or *size* upon the upper surface of the clot, which in the acutest inflammation is of the depth of a quarter to a third of an inch, and is strongly contracted or cupped.

"The principal facts which are known upon this subject, were observed by Mr. Hewson. They are the following:—1. In inflammatory blood the process of coagulation is slow, but the red particles begin to subside immediately, as may be seen in the blueish cast which the surface assumes, from which a transparent liquid can be taken that coagulates. 2. The subsidence of the red particles depends upon attenuation of the fibrin. In two phials, one of inflammatory serum, one of uninflamatory serum, a teaspoonful of serum loaded with red particles (from uninflamatory blood) was poured. They subsided with equal slowness in both. Two teaspoonfuls, one of serum with red particles from inflammatory blood, one of serum with red particles from uninflamatory blood, were poured into two phials of uninflamatory serum. There was no difference in the time of the subsidence of each. 3. The disposition to form a size is capable of being modified in a very brief period, by the condition of the nervous system." (P. 481.)

We cannot be accused of hypercriticism in pronouncing this to be a most unsatisfactory statement. Were it true, sad indeed would have been the torpor of modern science to have done nothing for the elucidation of the subject since the time of Hewson. But, while glad to believe it to be untrue, we regret that the knowledge of the profession upon this subject should be so stated. We suspect that some readers might find a little difficulty in ascertaining the drift of the experiments related; but they must conclude that the chief meaning of these "principal facts" is, 1st, that inflammatory blood coagulates slowly, but the slowness is not the cause of the subsidence of the red particles, because they may be seen to separate immediately; 2dly, that their subsidence is occasioned by the

attenuation of the fibrin, because they subside just as soon in inflammatory as in uninflamatory serum. This is, we suppose, "an inference by exclusion;" the time of coagulation has nothing to do with the fact in question, nor has the serum; ergo, an alteration in the specific gravity of the fibrin must be the cause. Nothing is said of the opinion that the separation of the red particles from the fibrin is independent of gravitation; and yet we know that very thin films of blood will shew these constituents separate, but arranged laterally instead of in an upper and lower lamina. This may be often noticed on the blade of a lancet, which, if the blood is inflammatory, will present a speckled appearance, caused by the red particles and the transparent fibrin. Dr. Alison has been led by this and other facts to assign the phenomenon to a vital repulsion between the particles. Whether this is the true doctrine, or Dr. Babington's notion that the longer fluidity of the *liquor sanguinis* gives time to the insoluble red particles to subside, we have not time to enquire; but certainly we dissent from the opinion that the principal facts respecting the inflammatory crust are contained in the above quotation.

The author cites from Hewson the case of a young man who was bled "in an attack of inflammatory fever:" out of four cups abstracted, size was formed in the third only. At the beginning of the operation the patient was faint by fear, at the end by loss of blood. This case illustrates very well the influence of the nervous system, which some would explain by saying that the coagulation was accelerated under this agency; others by supposing that in the first cup there was a loss of vital repulsion between the particles, but that in the fourth the increased quantity of serum had favoured coagulation. Mr. Mayo would, we apprehend, attribute the want of the crust to the density of the fibrin; but no attempt is made to explain how this view may be reconciled with the statement that the size in the third cup, though it continued for a long time fluid, was afterwards found "very thick and tough."

Nothing is said of the strong aggregation of the fibrin, or of its proportionate quantity, or of that of the albumen. Nor is the effect of the shape of the receiver or of the orifice adverted to; facts not less familiar than the influence of faintness, but not very easy to explain. Exposure to the air, which is known to promote coagulation, may account in some measure for the difference. Blood received into a large flat vessel or drawn in a small stream has a greater quantity exposed to the air in a given time; but it must be remembered that coagulation is favoured by extension over a wide surface even in vacuo.

The observations upon the state of the blood in disease of the kidney with albuminous urine, in diabetes, cholera, fever, and jaundice, are valuable, and are acknowledged to be derived from Dr. Babington's excellent article in the *Cyclopædia of Anatomy*. But why should the condition of the blood in rheumatism, gout,

and scorbutus, have been omitted, even if the author did not think it worth while to speak of its changes in those states of the system which lead to malignant diseases?

In proceeding to examine with the author some of the maladies of particular organs, we must leave almost unnoticed the very interesting section that treats of diseases of the heart, as we have elsewhere dwelt largely on this subject. We cannot, however, forbear remarking that we observe here also many important omissions, which might have been readily supplied, if not from the author's own experience, from the investigations of recent writers, more particularly those of MM. Louis and Bouillaud. We are glad to see that Mr. Mayo shews his acquaintance with the affection of the lining membrane of the heart which the last-named author has lately taken so much credit for noticing; but he might with advantage have treated the subject more at large than he has done, and have also vindicated the earlier claims of British medicine to the knowledge of the whole subject of rheumatic diseases of the organ. We must say a few words, in passing, on one observation which relates to the important subject of diagnosis. The author observes that "disease of the valves of the pulmonary artery is stethoscopically distinguished by its place and superficialness." The latter character may be admitted to be diagnostic, though its discovery must require no little nicety of ear. But it is an error to speak of the *situation* of the sound as distinctive of disease of these valves, since the same locality of sound must belong to the aortal valves, as the orifice of the one artery lies just behind the other. We have frequently noticed that young stethoscopists meet with a great many cases of that uncommon lesion, valvular disease of the right side, misled by their notions of what ought to be the respective seats of the sounds. The most frequent situation, and the greatest intensity of the bellows-sound is under the inferior third of the sternum, because the aortal valves lie just behind this spot; but it is so natural to fancy that disease in the left half of the heart must be heard considerably to the left of the sternum, that writers who might be supposed to know better have fallen into the error. Thus in that useful student's book, Martinet's Pathology, it is laid down that "if the left orifices are contracted, the bruit de râpe or bruit de soufflet is heard between the cartilages of the fifth and seventh ribs at the left side, whilst, if it occupies the orifices at the right side of the heart, the sound is most distinctly heard at the inferior part of the sternum." It is desirable that this twofold mistake of misplacing the sound of the aortal valves, and of attributing a bruit at the lower end of the sternum exclusively to disease of the right orifices, should be expunged from a work in such extensive use.

The section on the Veins is valuable and interesting. Subacute phlebitis is, in our author's experience, by no means a serious malady. The following extract illustrates the character of this inflammation and the practical use that may be made of it.

"I have in a considerable number of cases applied caustic or caustic paste over the trunks of the subcutaneous veins of the leg for varix. In some few instances, on the healing of the ulcer left by the separation of the eschar, no effect on the vein has been observable; but in much the greater proportion the vein has been found firm and hard, and its cavity obliterated at the part where the issue has been made. I have little doubt, that, in the successful cases, the irritation upon the vein has caused local subacute inflammation, as a consequence of which the blood has coagulated in its cavity, and plugged it. The vein is often tender, during several days, for the extent of three or four inches above the place at which the caustic is applied. The obstructed part does not exceed more than half an inch to an inch in length. I have never known acute phlebitis supervene in employing this practice." (P. 433.)

Respecting the origin of purulent depositions our author thus speaks:

"Of the attempts to explain the relation between acute phlebitis and the deposition and formation of matter in other parts, the most mechanical conjecture is, that the matter deposited in other parts is pus that has been first formed in the inflamed veins, and has thence been carried in the circulation to new places. The most original notion which has occurred to reasoners upon this question is, that the mixture of pus with the blood causes the blood as it circulates to form more pus; as the absorption of venereal virus causes a part to form more of the same poison. Gendrin's remarkable although inconclusive experiments, showing the rapid conversion of a clot into pus, favour this idea." (P. 435.)

The latter opinion was urged in a review of Dr. Carswell's "Elementary Forms of Disease," in the first number of this journal.* Mr. Mayo's own conjecture is as follows:

"The most cautious view may be to suppose, that, when one part of the serous surface of the vascular system is inflamed and suppurating, remote parts of the same surface—such as the capillaries of different organs—may with unusual readiness fall into inflammatory and suppurative action, and, without thickening the parts around, convert the blood circulating through them into pus." (P. 435.)

The section on the Arteries is likewise replete with information of the most valuable description. Whilst unprepared for therapeutical remarks in a treatise on Pathology so circumscribed as the present, we cannot consider intrusive in any work hints of really useful practice. Speaking of the means of arresting hemorrhage from a divided artery, the author observes,

"Pressure as a permanent means is rarely available, from the interruption of the circulation which it causes: but there are cases in which partial compression may be employed, and is found efficient. In hemorrhage from a deep wound of the palm of the hand, pressure may be directly applied to the bleeding vessel by means of a piece of sponge inserted into the wound, a raised compress being laid over it. If a similar compress is applied to the back of the hand, and a paper-knife laid upon

* Vol. I. p. 157.

each compress transversely to the hand; then by tying together the ends of the paper-knives on each side of the hand sufficient pressure may be made on the sponge in contact with the bleeding vessel to restrain the hemorrhage, without affecting the freedom of the general circulation in the part. Under this treatment, the wound inflames without much swelling, and suppurates; the extremity of the artery becomes plugged with effused lymph or coagulated blood, and the sponge becomes loose and comes away at the expiration of ten or twelve days. Bleeding after lithotomy is similarly stopped, by introducing a catheter through the wound into the bladder with lint fastened round it at the part, which is to lie against the plate of the ischium. Bleeding again from cysts of the thyroid gland injudiciously opened may be similarly arrested." (P. 440.)

The author has carefully described the changes in arteries effected by inflammation and perverted nutrition. The liability of the cerebral vessels to rupture from ossification is noticed, but no mention is made of one peculiar affection sometimes found in these vessels, which has not met with the attention it deserves. We allude to the formation of a solid deposit on their inner lining, which by the impediment to the circulation may occasion fatal apoplexy. This alteration we discovered in an elderly man who for many years had been subject to attacks of vertigo and coma, from which he recovered under the use of depletion, but who died at last with symptoms of apoplexy. There was no sanguineous or serous effusion, no ramollissement, or any alteration in the cerebral substance. The only morbid appearances were in the basilar and the anterior and middle cerebral arteries, which presented a great number of opaque patches, looking as if atheromatous matter had been deposited between the coats. But, on slitting them open, the opacity was found to be owing to nodules of a firm substance, resembling fibrinous concretions, either moveable or very loosely attached to the inner coat. Probably these bodies had at various times obstructed the circulation, not so much so however but that a diminution of the quantity of the blood by artificial means had been sufficient to abate the impediment for a time; the fatal attack must have been caused by a defective supply of arterial blood.

Of rupture of the arteries of the trunk the author has given two very interesting examples, one of which is remarkable for the simultaneous rupture of different parts of the aorta.

"A considerable ecchymosis (under the pericardium) was observed around the origins of the aorta and pulmonary artery, and about the right auricle. On slitting up the aorta from below, several patches of opaque, yellowish, and in some parts bony substance, appeared between the inner and middle coats. The aorta was large, and especially the first portion of the arch. The cellular membrane around the arch of the aorta contained clotted blood, by which also the external coat of the aorta was separated from the middle tunic, or at least from most of it, for a few circular fibres were attached to the interior of the cellular coat. This separation extended to the origin of the aorta, where it ended in a trans-

verse slit in the inner and middle coats, immediately above the valve which has no corresponding coronary artery. No distinct opening could be traced into the pericardium from this slit, but in two or three places the membrane seemed so thin, that probably the aperture was concealed by the distention with blood of the cellular membrane beneath; or the blood may be supposed to have transuded. A similar, yet smaller transverse slit, appeared at the commencement of the arteria innominata. The sides of the left ventricle were enormously thick, and its cavity enlarged, it contained a small clot. The mitral valves very large and thickened at parts, but to no great extent. The auriculo-ventricular orifice large. All other parts of the heart healthy.

* * * *

“An immense quantity of clotted blood was effused behind the peritoneum, along all the extent of the abdomen, aorta, and especially around the kidneys. On slitting up the aorta, two or three transverse slits were observed, similar to those mentioned to have been found in the thoracic vessels, with a like separation of the arterial coats.” (P. 455.)

In the chapter on the Respiratory Organs, the reader will perceive that the author does not observe any strict similarity of plan in the discussion of his subjects. If he chanced to alight first upon the diseases of the membranes of the brain, he would have considered the work a very excellent compendium of pathological anatomy; but if, instead of this part, he had opened upon the diseases of the pleura, he would have taken it for a manual of practical medicine. It is impossible for us with our limits to follow the author step by step; besides that, an abridgment of an abridgment would be barren to the reader, and unjust to the writer.

Under the head of Diseases of the Pleura, we find nothing that requires particular notice, excepting a successful case of paracentesis thoracis, and an account of another, under treatment, of a less promising character. The former was a young subject; and of the unsuccessful instances of the operation which have fallen within our own experience none have attained an age above the middle. This fact has been noticed also by Baron Larrey, and may perhaps be accounted for not only by the greater buoyancy of constitution in such subjects, but also by the greater flexibility of the cartilages of the ribs, and their consequent readiness to adapt themselves to the shrunken contents of the chest. We do not find any notice of cartilaginous and osseous formations in the pleura, though they are by no means uncommon.

Our notice of the section on Diseases of the Lungs must be brief: like the others, it contains a good deal of valuable matter, but exhibits numerous oversights. Dilatation of the larger bronchi, an alteration of much importance with reference to the diagnosis of vomicae, is not spoken of; contraction and obliteration of these passages are also unnoticed.

Mr. Mayo observes, that “ulcers of the larynx are of frequent occurrence, and are *often* combined with phthisis.” We ask, are

they ever combined with any other disease of a chronic nature, excepting syphilis? He adds, "Alone they constitute phthisis laryngæa." Do they ever occur alone, or, in other words, is this phthisis laryngæa ever independent of tubercles in the lungs on the one hand, or of a syphilitic taint on the other? We need scarcely remark that pathologists most capable of speaking to the question, MM. Louis and Andral, reply in the negative. It is possible but not proved that mercury may produce chronic ulcers of the larynx: the alleged instances are we apprehend of a mixed nature; that is, the metal had been administered in considerable quantity for the cure of syphilis.

The following is curious, though, as the author remarks, "not extremely infrequent."

"Mr. Charles Mayo, of Winchester, favoured me with a preparation from the body of an elderly lady, in which a firm whitish elastic polypus grew by a pedicle from the root of the epiglottis. It had produced occasional suffocative seizures, in one of which the patient died." (P. 514.)

The chapter devoted to the Digestive Organs begins with the morbid changes in the fauces, among which are the appearances of the tongue in different states of the system. Some of the more common of these are portrayed accurately enough, but, if the author thought it necessary to go into this department of semeiology at all, he would have done better to have treated it more amply. To exemplify some of the omissions: he mentions neither the patchy shining surface of the tongue, nor its turgid spongy condition, prominent papillæ, and salmon colour, so often observable in chronic mucous diseases complicated with tuberculous or carcinomatous cachexy; and (which is still more remarkable) no mention is made of the pale, sodden, indented tongue presented by chlorotic females, and sufferers from colonic dyspepsy. In a modern work, one is scarcely prepared to find hare-lip and congenital fissure of the palate dismissed without a hint of the improvement in our knowledge of these malformations since the researches of Serres, Isid. St. Hilaire, and others, upon the laws of organization. We should certainly be sorry to see any part of an elementary work taken up with the more fanciful and disputable theories belonging to this subject; but surely certain general principles respecting the arrest of development in different parts of the body and the analogy between morbid structures and inferior types of organization are as firmly established as any generalizations in the whole range of medicine.

Under diseases of the Œsophagus the author narrates some interesting cases of spasmodic difficulty of deglutition. In one it depended upon the irritation caused by ulceration of the interior of the larynx; in another it was probably sympathetic with derangement in other parts of the alimentary canal, and was cured by blue-pill and alteratives; in a third it appeared connected with gout; in

a fourth, a lady under Sir B. Brodie's care, it was caused by anæmia, and cured by treatment directed against internal hæmorrhoids; and in the fifth it was complicated with "symptoms of inflammation of the peritoneal coat of the liver," and disappeared with the latter complaint. To these cases we are tempted to add one which occurred in our own experience not long ago. A young married woman had suffered dysphagia, which some practitioners considered structural, others spasmodic, for three years, during which time she had also been troubled with frequent and profuse hemorrhage from the uterus. On closely questioning her, we found that, although she had dated her illness from the first feeling of dysphagia, she had been subject to hemorrhage for many months before, and that this hemorrhage began during her recovery from a labour, of which an ignorant midwife had the charge, and in which great force was used in extracting the placenta. On examination per vaginam, we discovered an inverted uterus. It was almost impossible to help thinking of those deranged sensations in the gullet, particularly globus hystericus, so common in uterine disorders, and we were almost inclined to refer the case to a special sympathy between the vagina and œsophagus. But, on reflecting that between affections of the uterine system and such remote disorders as globus hystericus, there probably intervenes a peculiar state of the nervous system, that this state is often induced by other causes, and by none more frequently than by anæmia, and that spasmodic difficulty of deglutition has resulted, as in Sir B. Brodie's patient, from hemorrhage from other surfaces, we preferred concluding in the present instance that the inverted uterus was only indirectly connected with the stricture of the œsophagus. With the issue of the case we are unacquainted.

Stricture occasioned by corrosives is illustrated by a case of Dr. Wilson's, which the author witnessed in the Middlesex Hospital. A young woman swallowed about a tablespoonful of sulphuric acid on the 4th of January, and died of its effects on the œsophagus on the 14th of November.

The affections of the Stomach are discussed under the heads of hemorrhage, inflammation, indigestion from functional and structural causes, gelatinization, and malignant disease. With respect to the first of these we do not complain that the author says nothing of its diagnosis from hæmoptysis, or of its causes; but we cannot forbear remarking that he has expended much space on the semeiology of disorders certainly not more important than the present. Acute gastritis is treated of only as the effect of irritants, and the materials of this part are taken from Christison. Not a word is said of the difficulty and importance of distinguishing inflammatory injection from mere cadaveric congestion. It is true the profession, (thanks to the labours of Yelloly, Billard, Begin and Trousseau, Orfila and Andral,) are fully awake to the subject, but not more so than to the irritant action of arsenic, corrosive sublimate, &c.

Although acute gastritis may be rare as an idiopathic disease, it might have been as well to have devoted some little consideration to it as a complication of other diseases, thorough acquaintance with this subject being quite as valuable to the practitioner, as with the inflammation induced by poisons. Dyspepsia is examined in a very unsatisfactory manner. Some cases are related in which recovery took place; but whether they depended upon one and the same or upon different conditions of the stomach, whether chronic inflammation, or vitiated secretion, or morbid sensibility had most to do with them, are questions neither entertained nor hinted at; nothing occurs to remind one that such writers as Broussais, W. Philip, Barras and Johnson ever existed. Most of the cases are taken from Abercrombie. One got well by adopting a vegetable diet, another by means of sulphate of iron and aloes, a third by aloes only, a fourth by fresh-made curd, and a fifth by acetate of lead; but the student is left to guess why these agents were respectively apposite.

The following very judicious observations occur under the diseases of the duodenum.

“Vomiting is not so simple a consequence of duodenal as it is of gastric disease: it is here a symptom in some sort transitional between the effects of gastric and of intestinal disorder. Vomiting from duodenal disease either may be the result of irritation, like vomiting from affections of the stomach, or it may be the result of obstruction. The calibre of the duodenum is liable to be contracted by thickening of its coats to a degree which practically obliterates the cavity, when vomiting ensues, as in strangulated hernia. The duodenum closely adjoins the stomach, liver, and pancreas: it is situated before the spine, the psoas muscle, the right kidney, and ureter, and behind the ascending portion of the colon. There are few occasions for finer diagnosis than this complicated region affords. Disease can hardly exist in one of these parts without thorough contiguous sympathy implicating in a greater or less degree those adjacent to it. It is thus often extremely difficult in individual cases to identify the organ primarily attacked.” (P. 311.)

Upon the much disputed theory of ileus the author thus confesses his faith:

“I am disposed to conjecture, that spasm and contraction of the muscular fibres of one portion of the intestine are the primary source of the disorder; the symptoms and the varied appearances of the dilated part of the intestine above being so much the same with those which are met with in different cases of fatal strangulated hernia. The remedies, which are beneficial in ileus, appear to me to countenance the theory of the disease which I have adopted. The principal of these are bloodletting, the tobacco injection, and opium, which might well allay and remedy spasm of one part, and a consequent state of distension, congestion, and inflammation of the portion above it; but are hardly calculated to relieve any supposed state of distension of a part of the intestine merely dependent upon weakness of its muscular structure. Dr. Abercrombie, from whose work on the Diseases of the Abdominal Viscera—rivalling, in

scientific and practical interest, his Treatise on the Brain,—I have largely borrowed, is not disposed to admit the hypothesis of spasm; yet among his numerous illustrations of the subject there are many which seem to me to favour it." (P. 313.)

Our own belief is, that both spasm and paralysis are concerned in producing the obstruction. First, there is inflammation of the muscular coat, (whether beginning in this or propagated from the serous, we shall not enquire); 2dly, this inflammation causes spasm of the fibres, and if it did not, it would be an exception to muscular inflammation in every other part; 3dly, the morbidly contracted part refuses admission to the substances propelled from the superior portions of the gut; 4thly, the inflammation may be subdued by bleeding, and the spasm cease with it, or the latter may be more immediately overcome by a direct sedative influence, as that of opium and tobacco; 5thly, the inflammation may continue unchecked, in which case the fibres lose their contractility, (like the intercostal muscles in pleuritis, as explained by Dr. Stokes,) and though the commencement of the diseased part may receive solid matter from the healthy part immediately adjoining, it is incapable of propulsive contraction, so that the rest becomes distended by such substances as can find their way independently of muscular action, viz. air and liquids.

The constipation in peritonitis may, we think, be traced to a similar causation. An alvine evacuation in such cases is a favorable sign, not as proving the removal of an obstruction, but that inflammation has abated, and that the muscular fibres have consequently resumed their natural function, neither contracting too much nor too little; both extremes being, as we have shewn, incompatible with the propulsion of the fæcal matter.

The present section is concluded with a brief but vivid description of Cholera, some speculations upon its proximate cause which in the author's opinion is a derivation of blood to the stomach and bowels, and some pithy remarks upon the remedies employed. These are classed under the heads of empirical, rational, and paradoxical; calomel and bleeding belonging to the first, stimulants and opiates to the second, and cold affusion to the third.

We pass over the section on diseases of the Colon, as it contains little original matter. Of those of the rectum the first enumerated is the simple ulcer or fissure which occurs just above the sphincter. An interesting case is mentioned in which this affection simulated diseases of the prostate, but was cured by division of the sphincter and application of mercurial ointment to the ulcer. The *spreading* ulcer of the mucous with induration of the muscular coat, so prevalent among females in this country, is well described. The mucous membrane is often destroyed in this disease from half an inch above the anus to the sigmoid flexure of the colon, the muscular fibres become pale and atrophied, and the cellular membrane is hardened, though scarcely increased in thickness. The ordinary seat of *per-*

manent stricture the author has found to be from two inches and a half to four inches above the orifice of the gut; but his experience has not taught him to consider one part more subject than another to *spasmodic* contraction. He is of opinion that the latter kind of stricture is generally dependent upon vitiated secretions. We have met with it most frequently in hysterical females, in whom it has appeared and departed with the usual capriciousness of their other ailments. We cannot resist the temptation of extracting the remarks upon hæmorrhoids, as they certainly are *multum in parvo*.

“The different varieties which I have observed are,—1. Indurated inward piles, dark, firm, with little sensibility, protruding at each motion, with discharge of mucus. 2. Florid, soft, vascular protrusions of the mucous tissue in several folds, which bleed freely. These two kinds had better be tied, other circumstances being favorable. 3. One or more round blue knobs exactly at the margin of the intestine; therefore half covered by skin, half by mucous membrane. These should be let alone, unless one of them becomes extremely hard and distended and painful, when it had better be opened with a lancet. 4. Pendulous or ridgy folds of thickened skin around the anus, occasionally or constantly causing uneasy sensations, heat, itching, pain. These should be removed by the knife or scissors. 5. Warty excrescences occur round the anus, which should be removed with the scalpel, and the bases of each touched with caustic.” (P. 353.)

There is nothing of particular interest in the section on Peritonitis. Ascites is not mentioned as an effect of chronic peritonitis. We are of opinion that the tubercular form of the malady has not received one half of the attention which it deserves, being far more frequent than would be supposed from the incidental manner in which it is spoken of in this and other systematic works. Its insidious origin and progress, its peculiar nature, and its constitutional relations demand for it the greatest nicety of management; and in but too many cases palliation is the utmost achievement of the practitioner.

Medullary sarcoma, melanoma, and gelatiniform sarcoma are mentioned as the malignant diseases of the peritoneum; and the forms and arrangement which the author assigns to each are nodules and clusters. He says nothing of that general thickening with hardening of the peritoneum, both visceral and parietal, which is not unfrequently found in combination with scirrhus of the liver; and which is most probably the effect of carcinomatous matter deposited in the subserous cellular membrane.

The section devoted to Hernia is very luminous in its descriptions and sound in its practical applications. With the cause of strangulation of the protruded part the author will not allow that spasm has any thing to do. We fully coincide in his belief that congestion of blood about the passage and neck of the sac may contribute to the constriction, but that the principal cause is “distention of the intestine with air and liquid; the traction so produced of the

distended part upon the narrow aperture of the neck of the sac giving a tightness to the portion of intestine lying in it, which produces perfect obstruction." Many very valuable precepts upon the treatment of hernia are added.

The diseases of the liver are well arranged and for the most part accurately described; but we nowhere find any account of the fatty liver peculiar to tuberculous subjects. Certainly we cannot recognize it in the following paragraph, though the change here spoken of is the nearest approach to the lesion in question:

"*Steatosis of the Liver.* A substance resembling wax or adipocire is found in the liver, producing what on the analogy of a like disease in the voluntary muscles may be termed steatosis of that organ. This substance is sometimes found in irregular portions mixed with the healthy structure, and sometimes in small nodules like peas dispersed through the substance of the liver: in some cases the whole liver, or a large part, is found changed into an uniform mass of this appearance." (P. 400.)

This is very different from the fatty liver of phthisis, the characters of which our own observation has taught us to be, enlarged bulk, pale salmon colour, substance slightly brittle and granular, greasing the scalpel, rendering paper transparent, and yielding a considerable quantity of oil when toasted.

We must leave untouched the pathology of the spleen, pancreas, kidney, and genito-urinary system; and the whole chapter on the nervous system: this last is taken up in another article of the present number. No part of the work is better executed or appears to have more directly emanated from the author's own researches than the two first chapters which treat of the Bones and the Joints. A very clear account is given of the means whereby injuries of bone are repaired. The remarks upon reparation of the cranial bones and of the neck of the thigh bone within the capsule we think particularly satisfactory. The slowness of the process in the former instance is shewn to depend upon the want of a provisional callus, the fissure being filled up with osseous matter only by extension of bony growth from the opposite surfaces. The physical cause of the absence of a provisional callus is unknown, though the final cause, viz. the avoidance of pressure on the encephalon, is obvious. If the callus is furnished by surrounding tissues, certainly the scalp above and the dura mater below appear to be as little capable of contributing in this manner to bony reparation as any parts in the whole system. In the case of fracture of the neck of the femur, the surrounding tissues "are excluded by the untorn synovial and capsular membrane from communicating with the fracture."

Some interesting cases are related in the sections on hypertrophy and atrophy of bone. Under the head of inflammation of this tissue the author mentions two examples of inflammatory enlargement of the ribs,—one in a young lady whose health was not much impaired.

"The other had the following history. A young gentleman, through hard study and neglect of exercise, became dyspeptic, with pain in the head, and inability to collect his thoughts. After a time, three or four of his ribs on each side enlarged, and were painful. He gave up his studies, and went to the south of Europe, where he recovered. A year or two afterwards, he became a medical student in London. In a little time, his former indisposition returned; and he became again dyspeptic, with hypochondriasis, and painful swellings of the ribs. Upon going into the country, he recovered." (P. 25.)

We had a case recently in which three ribs on one side were inflamed and swollen. There were unequivocal marks of periostitis in other parts; the individual having been long subject to dyspepsia and rheumatism. Of abscess in bone the author has seen only one instance, but he alludes to three related by Sir B. Brodie in the 17th vol. of the *Medico-Chirurgical Transactions*.

The reader will find a careful description of the morbid processes in necrosis and caries, and the varieties of these affections well discriminated. The external characters of the malignant formations are given, but little is said of their minute structure and their origin. Upon this subject the author might have availed himself of Dr. Hodgkin's researches in the *Medico-Chirurgical Transactions*, without committing himself to the cystic theory.

We cannot afford space for noticing the Diseases of the Joints, the discussion of which, as of other departments of surgical pathology, the author conducts with even more than usual ability. We looked through the sections on the Voluntary Muscles and the Aponeuroses for some account of rheumatism. Respecting the former of these tissues, he observes that their inflammation "may be acute or chronic, circumscribed or diffused, or it may be rheumatic or gouty," (p. 124;) and the aponeuroses he tells us are "a principal seat of rheumatic inflammation." We are glad to detect in these passages a recognition of the principle that the essential nature of rheumatic and gouty inflammation is not determined by the seats which they occupy, though they evidently prefer some tissues to others. Mr. Mayo gives no opinion respecting the specific nature of these phenomena, and of their relation with certain constitutions, and more particularly with certain states of the blood.

The chapter on the Skin is divided into three sections, of which the first embraces those diseases which the tissue shares with other parts of the system; the second, the diseases peculiar to the skin; and the third "the principal forms of ulcers in which the skin is involved." The descriptions of the first two are borrowed principally from Rayer. "In the third, what I have stated is the result of my own observation, concurring, I suppose, with that of other surgeons." It is somewhat remarkable that on such a subject the author should not have had the curiosity to arrive at something more than a *supposition*. But a great deal of matter is condensed

in this chapter which the student will find very useful as a collection of brief but characteristic descriptions.

Although the discharge of our critical duties has compelled us to point out many deficiencies in this work, it must have been noticed by those who have taken the trouble to follow us in our survey, that we have seldom had occasion to charge it with errors of statement or with falseness of reasoning; the freedom from which will compensate in a general view for many faults of omission. Considered indeed as a whole, these "Outlines of Pathology" form a very acceptable addition to medical literature; and no one, we venture to say, will regret having placed them in his library. Readers who open them with the expectation of finding traces of deep and extensive research, or of minute analysis,—expositions of comprehensive principles,—records of new observations, and original deductions, or such excellencies as distinguish the author's Outlines of Physiology, will scarcely fail to be disappointed; but we entertain not the slightest doubt that the hope expressed in the following extract from the Introduction will be more than realized.

"The author is not without hope, that the following work may be of service to students, if only by giving method to their enquiries, and by accustoming them to base the study of disease in anatomy, that it may be of help to those who visit or are engaged in forming pathological collections, that it may sometimes assist in the diagnosis of obscure cases by enabling the practitioner to review all the contingencies to which particular organs are liable; and may lead him, by the light again which method gives, to derive increased advantage from miscellaneous professional reading, as well as to tabulate and profit by, and to let others profit by, the results of his enlarging experience." (*Introduction*, p. xxviii.)

ART. IV.

Die Erkenntniss und Heilung der Ohrenkrankheiten. Von Dr. WILHELM KRAMER.—Berlin, 1836.

The Nature and Treatment of the Diseases of the Ear. By Dr. WM. KRAMER, of Berlin. With Copper-plates.—Berlin, 1836. 8vo. pp. 400.

THIS is rather a new work than a new edition of a Memoir on Chronic Deafness, published by the author three years ago.* The earlier work was fragmentary; the present, Dr. Kramer puts forward as a complete treatise on Diseases of the Ear.

The first section contains a critical analysis of the literature of diseases of the ear, in chronological order, from the earliest times, concisely and searchingly written; but our limited space will oblige us to pass over this part of the work with slight notice. Up to very recent times there has prevailed the greatest uncertainty in the knowledge and want of plan

* Erfahrungen über die Erkenntniss und Heilung der langwierigen Schwerhörigkeit. 8vo. Berlin, 1833.

in the treatment of the diseases of the ear; and this, Dr. K. asserts, has been owing, in a particular manner, to the neglect of actual examination of the organ in its diseased state.

Hippocrates does not treat of affections of the ear as separate forms of disease. He merely mentions them as accompaniments of fevers and other acute complaints, and even then only according as they are prognostics of a favorable or unfavorable termination. Celsus, who first described affections of the ear as distinct diseases, gave excellent rules for the treatment of the more violent inflammations of this organ, and recommended ocular inspection of the auditory passage in cases of long-continued deafness. But, unfortunately, the local use of acrid stimulating remedies, recommended by him for all diseases of the ear without distinction, has obtained, even to our time, the greatest favour from practitioners. Galen adopted this practice also, although he blames Appollonius for advising pains and ulcers of the ear to be treated indifferently with the most violent stimulating substances; but, indeed, it must be confessed that, in Galen's time, the knowledge of the ear was retrograde, compared with its state in the days of Celsus. For more than a thousand years the crude empirical practice of Galen in diseases of the ear maintained full and undiminished sway. The additions made to the knowledge of the anatomy of this organ towards the end of the fifteenth and the first half of the sixteenth century, by the labours of Achillini, Vesalius, Ingrassias, Eustachius, Fallopius, Casserius, and others, exerted little influence on the pathological and therapeutical opinions of the physicians of that time; so that, in the work of Mercurialis, we do not find anything more than was given by Galen fourteen hundred years before. Fabricius Hildanus was the first who recurred to the true way of investigation, but he confined his observations to the auditory passage. He was the inventor of the *speculum auris*. The necrotomic examinations of Bonetus in reference to the ear are only to be considered as examples how such inspections ought *not* to be made, if they are intended to be of use to science. A few years after Bonetus, Duverney published a work on the ear, the anatomical part of which, abounding as it does in excellent and illustrative investigations and descriptions, has gained, even for the annexed pathological and therapeutical treatise, a meed of approbation to which it is by no means entitled. Still Duverney in that work went a step beyond his predecessors, inasmuch as he has not only considered the diseases of the auditory passage and of the membrana tympani, but also those of the cavity of the tympanum and labyrinth. But we admire in Duverney the anatomist of the ear, not the surgeon of its diseases; and in this category we must include, with still greater reason, Vieussens, Valsalva, and Cassebohm.

To a postmaster of Versailles, of the name of Guyot, we are indebted for the hint of a discovery which forms an epoch in the history of diseases of the ear; a discovery which has imparted to the diagnosis and treatment of the diseases of the middle and internal ear the only sure basis: we mean the possibility of introducing a catheter into, and consequently injecting, the Eustachian tube. Guyot, having some knowledge of anatomy, was led to think of this, with the hope of doing something for the alleviation of a deafness under which he himself laboured. For this purpose he invented a syringe, which he presented, in 1724, to the

Royal Academy of Sciences of Paris. But he proposed to introduce the catheter into the Eustachian tube by the mouth, a thing not practicable, though he might, as the reporters of the Academy remark, have succeeded in washing out the extremity of the Eustachian tube. It is probable that it was merely by this that his own deafness was relieved. For the very imperfect and indeed impracticable procedure of Guyot, Archibald Cleland, an English army surgeon, substituted, in 1731, the introduction of a flexible silver tube through the nose into the Eustachian tube. Petit had previously proposed, and Douglas had demonstrated in his anatomical lectures, the possibility of passing a probe, &c. into the Eustachian tube by the nostrils. But Wathen was the first who gave cases in which, by injections into the Eustachian tube, a partially favorable result, at least, was obtained.

We are sorry that we cannot follow our author through his interesting and instructive history and criticism of the numerous publications on diseases of the ear, which have appeared in the different countries of Europe in more recent times. There does not appear to have been hitherto much that is valuable on diseases of the ear in the medical literature of Germany. Lentin, Himly, Schubert, Trampel, Albrecht, Van Hooven, Beck, Riedel, Vering, Rauch (of St. Petersburg), Krukenberg, and Lincke, are the chief writers. Of these, the works of the two last-named are most deserving of notice. The inflammatory affections of the ear are successfully illustrated by them, but they have failed in sufficiently discriminating their different sites and forms.

On turning to the medical literature of France, we find works characterized by a profundity which we have looked for in vain in those of Germany and England. At the head of the French medical literature on the ear stand the works of Itard and Deleau, with whom neither Demonçeau nor Alard can be associated. Montfalcon is a slavish follower of Leschevin; and the posthumous work of Saissy scarcely deserves the encomiums which have been lavished upon it. Saissy writes too much in the old style of imagining diseases, and then devising modes of cure for them. The latest work on the ear published in France is a small brochure, entitled "*Recherches sur la Surdit  , par J. V. Gairal*," which contains what the author is pleased to call a new method for the catheterism of the Eustachian tube. He describes instruments of his own for this purpose and for the perforation of the membrana tympani; but we cannot see that they are improvements. Perhaps the hint for the employment of an elastic gum bag for injecting air into the Eustachian tube may be occasionally useful, it being more readily obtained than an air-condensing machine.

In England, the state of medical science relating to the ear, and the art of the aurist generally, are in a condition vastly inferior to the same branches in France, and even in Germany before the works of Dr. Kramer. The initiatory essays at improvement by Cleland and Wathen were not followed up as they ought to have been. Sir Astley Cooper's papers in the *Philosophical Transactions* for the years 1800 and 1801, attracted considerable attention to the subject at that time; and we may look upon Mr. Saunders's work, emanating as it did from the school of which Sir A. Cooper has been so bright an ornament, as a result of the impulse thus given. Mr. Saunders's is not, however, a work from which

we can derive any fundamental notions of the subject, and is totally deficient in data for forming a correct diagnosis. He has not even been successful in elucidating that which he made his particular object of investigation, viz. what he calls *the puriform discharge from the tympanum*, under which name, we think, he has confounded distinct diseases of the auditory passage, *membrana tympani*, and cavity of the tympanum. Mr. S., however, deserves credit for his attempt to improve the state of the surgery of the ear in this country; and it is to be regretted that his endeavours have not been seconded by any person qualified for the task. The practice in diseases of the ear has been almost entirely left in the hands of persons whom education had in no way fitted for scientific enquiry.

Mr. Curtis, in his treatise on the Physiology and Pathology of the Ear, has appropriated the *whole* of Mr. Saunders's essay. The exact words, indeed, have in some instances been changed, but the plagiarism is too manifest to escape even the most inattentive reader. To this paraphrase of Mr. S.'s work, Mr. Curtis has added some things from other authors, and some histories of cases treated by himself, (of course all most successfully,) and has thus concocted a treatise which, with singular effrontery, he has put forth as entirely of his own composition, and as containing the results of his own practice. This work has now, for a period of about twenty years, been forced upon the attention of the public, by the advertisement of successive editions; and it is a melancholy fact that there should have been found editors of even medical journals either so ignorant or so careless as to lavish commendation on such a production.

If we take up the works of Wright and Stevenson on the ear, with the expectation of finding anything much better in them, we shall be disappointed. Though Stevenson has not pillaged Mr. Saunders's work as Mr. Curtis has done, we yet recognize the same ideas running throughout his treatise. "Wright," says Dr. Kramer, "is only exceeded in shallowness and emptiness by Stevenson and Curtis." We may add, he is not a whit behind them in pretension.

Mr. Buchanan, a respectable and well-educated practitioner, has published some works on the ear. Dr. Kramer thinks that the only good thing in Mr. B. as an aurist is, that he practises catheterism of the Eustachian tube; but, with the exception of the "surgical remarks on introducing the probe and catheter into the Eustachian tube by the nostril," appended to the description of the "engraved representation of the anatomy of the human ear," we are not aware that his writings afford much evidence of his employing injections into the Eustachian tube as an important therapeutical agent. Mr. B.'s nosological arrangement, Dr. Kramer says, abounds in errors and repetitions.

The last English work treating of the diseases of the ear we have to notice is an essay containing "a few remarks on Congenital Deafness, on the Diseases of the Ear, and on some Imperfections of the Organs of Speech," appended to a "Treatise on the Anatomy and Physiology of the Organ of Hearing," by Mr. Tod. This gentleman devotes two long chapters to the consideration of the causes and treatment of congenital deafness, but he appears to have totally mistaken the proper object and mode of investigation. Instead of drawing inductions from carefully

observed and well-established facts, he loses himself in speculations which we cannot otherwise characterize than as crude, inconclusive, and little to the purpose. The treatment proposed by Mr. T. for congenital deafness, when depending on derangement of the structure of the tympanum, is by the introduction of acrid substances, such as ammonia, tincture of cantharides, ether, the mineral acids, &c., to cause such inflammation as will be sufficient, according to him, to rouse in some degree the reproductive powers of the textures contained in that cavity. And these acrid substances are to be employed to the extent even of inducing suppuration in the cavity of the tympanum. Mr. T. gives four cases illustrative of this mode of treatment, but they are related in too indefinite a manner to convey much information; and, on the whole, we cannot say that the author has added to our knowledge of the diseases of the ear.

Before dismissing the subject of English medical literature on the ear, we ought to allude to Mr. Swan's observations; and we enter upon this notice with a feeling very different from that which influenced us in speaking of certain of the authors whose works we have been criticising. Mr. Swan, in his *Treatise on the Diseases and Injuries of the Nerves*, in discussing the diseases of the auditory nerves, expresses his opinion that deafness, and the noises which accompany it, very often depend on the state of the nerves distributed on the membrane lining the tympanum. "He wishes to establish that, in a great proportion of habitually deaf people, the auditory nerves are not affected." We shall hereafter state our opinion of this theory; and must now advert to another. There is at the bottom of the internal auditory meatus a communication between the auditory and facial nerves, which has been pointed out by Swan, Arnold, and perhaps by Köllner. By this communication Mr. S. endeavours to explain a circumstance which he considers he has established, viz. that in cases of deafness from some other cause than disease of the auditory nerve, sound is conveyed through the medium of the facial nerve of the seventh pair, and some other nerves connected with it. We must be cautious of admitting the conclusions of even the highest authorities, if we are not assured of their having formed a correct diagnosis by carefully instituted local examination. That Mr. Swan has not sufficiently attended to this, may be inferred from the circumstance that he speaks of a case of deafness which he thought might arise from imperforate Eustachian tube, for no other reason than because noises in the ear, which Mr. S. considers the usual characteristic symptom of nervous deafness, were wanting. He therefore performed perforation of the membrana tympani in each ear, but without any good result. Of the insufficiency of the indication and the impropriety of the operation in this case, we shall have occasion hereafter to speak.

We must now proceed to examine the practical part of Dr. Kramer's work.

"In the present treatise," says Dr. K., "it has been my endeavour to arrange the diseases of the ear in a more natural manner than has been hitherto done, to found them on decided organic alterations of the constituent structure of the ear, to avoid all hypothetical and speculative admissions in our arguments; but, above all, to deduce the diagnosis of each form of disease from attention to the actual symptoms, independent of the always doubtful accounts of the patient, and on this sure basis to establish, as far as possible, a simple and effectual method of treatment." (P. 30.)

Before entering on the consideration of individual diseases, we shall first notice what Dr. Kramer says of the pretensions of the principal remedies which have been from time to time vaunted as specifics against *Deafness*, and of the frequency and curability of diseases of the ear in general.

First on the list of Locally Acting Remedies, which have been vaunted as capable of curing deafness, come *electricity*, *galvanism*, and *mineral magnetism*, which may be all included in the same category. Dr. K. designates electricity as the least efficacious of this class of remedies. He examines into the proofs of the cases adduced by Mauduyt, Cavallo, Le Bouvier, Desmortiers, and Busch, in support of the efficacy of electricity; and he very clearly shows that not one individual could be said to have been cured, though many were made worse. Itard, speaking from his own experience, says that electricity is without any useful effect on the ear; and in this opinion Deleau perfectly coincides with him. Experience has shown that galvanism is as little to be depended on as electricity. As to mineral magnetism, its action is so nearly allied to that of electricity and galvanism, that no better effect was to be expected from it, and the result has confirmed this anticipation. Many cases, indeed, have been published as cures of deafness by mineral magnetism; but it will be found that what real improvement may have taken place was only temporary, such as has been observed to occur from galvanism, in consequence of the increased irritability excited during the employment of the agent. In most cases, however, the improvement was only apparent.

Of *moxa* and the *actual cautery*, Dr. K. remarks, that, "even on Itard's recommendation of them we can lay no weight. They are too heroic remedies to be used without having good reason to expect a beneficial result."

"*Blisters* and *tartar emetic ointment* are," says Dr. K., "only indicated in circumscribed chronic inflammation of the auditory passage and *membrana tympani*." He prefers tartar emetic ointment, which he rubs in below the mastoid process, to avoid all risk of injuring that part.

In regard to *issues* and *setons*, Dr. K. says, "setons are of as little value as issues. . . . All patients who have worn a seton have unanimously described the injurious influence of it on the disease of the ear."

There is no disease of the ear in which *douches*, either of water or vapour, thrown into the auditory passage, are indicated: not so, however, as will be seen hereafter, with the douches introduced into the Eustachian tube by means of the catheter.

All *drops* and *injections*, especially those of a spirituous, acrid, irritating nature, though sanctioned by long use, are pronounced by Dr. K. to be pernicious. All quack medicines for deafness are of this kind.

Of the General Remedies, Russian vapour baths have been much and indiscriminately recommended in diseases of the ear, in consequence of the supposed origin of most of them from cold. But, even supposing this to be the case, surely it is not to be expected that the local malady will be at once removed along with the general disease which may have given origin to it.

Sea-bathing has been as much recommended, especially in supposed

cases of nervous deafness, but unfortunately the results have not answered the expectations.

Warm baths, sulphur, chalybeate, and other baths, are injurious, if there be any congestion in the head and ears; if otherwise, they are admissible only when a general complaint, existing along with the deafness, urgently requires their use.

Emetics are of no use in nervous deafness. They have been used for the purpose of clearing an obstructed Eustachian tube: they may have this effect if there be merely a collection of mucus closing up the mouth of this canal; but, if the obstruction from mucus be more extensive, they are nugatory.

Purgatives are admissible only as auxiliary remedies in acute and chronic inflammations of the ear, as of other parts; but they must be considered injurious in nervous deafness.

Bleeding ought only to be employed on general principles.

"The treatment by *salivation, abstinence, and inunction*, I believe," says Dr. K., "can never be indicated for any disease of the ear, as such."

Arnica flowers in infusion have been vaunted as a specific remedy for paralysis of the auditory nerve from rheumatic metastasis; for the same reason, we suppose, that many other remedies have acquired reputation in particular diseases,—viz. because they happened to be used at a time when the disease, having resisted all medicaments previously employed, began to yield of its own accord.

"If," says Dr. K., "by this exclusive criticism of the general methods of cure directed against the diseases of the ear, it should be supposed that I mean to consider them as altogether isolated, independent of all connexion with the diseases of the rest of the organism, I formally protest against such an inference. On the contrary, it is my deliberate conviction that, in every disease of the ear, especially if of long continuance, the general health of the patient must be most carefully regulated according to the rules of general and special therapeutics; not with the intention or hope, however, of improving, much less curing, in this way, the disease of the ear, which certainly will not succeed; but only in order thereby to clear and level the ground on which the superstructure of the special treatment of the disease of the ear is to be erected." (P. 89.)

After insisting on the importance and necessity of careful local examination in all cases of diseases of the ear, Dr. K. proceeds to remark on the *curability* of the diseases of the ear.

"We ought not," he says, "to allow ourselves to be imposed upon when we read that Curtis (whose inconceivable ignorance of what has been done in this department of medicine, and whose crude empiricism in the treatment of diseases of the ear we shall have often occasion to expose,) from the year 1817 to 1829 inclusive, treated in the London Dispensary for Diseases of the Ear 3,782 persons; of whom, 3,780 were dismissed perfectly cured, 2,497 improved, and only 2,505 without any improvement. In this report there is a total want of all intrinsic credibility. The same improbability exists, nearly to as great a degree, in the works of Wright. The account which he gives of the brilliant results of his practice must strike us as highly incredible, if we only consider his assertion that gargling is quite as effectual as injections in the diseases of the Eustachian tube and cavity of the tympanum! We must therefore withhold our confidence from him when he asserts that he has, out of 1500 patients, cured 496, considerably improved 380, partially 290; whilst, of those remaining, 210 either continued under treatment or had given up attendance, and only 124 had been dismissed incurable. In juxtaposition with these altogether

incredible assertions, we place a table in which 300 patients have been carefully arranged according to the different forms of disease under which they laboured, and classed under different heads according to the therapeutical results obtained.

Tabular View of the relative Frequency and Curability of Diseases of the Ear.

Name of the Disease.	Incurable and not treated.	Cured.	Relieved.	Uncured.	Total.	
OF THE CARTILAGE OF THE EAR.						
Erysipelatous inflammation		1			1	3
Scirrhus degeneration		2			2	
IN THE AUDITORY PASSAGE.						
Erysipelatous inflammation		17			17	85
Inflammation of the glandular integument.....	3	9	13		25	
Inflammation of the cellular tissue.....		2			2	
Inflammation of the periosteum.	2				2	
OF THE MEMBRANA TYMPANI.						
Acute inflammation		1			1	36
Chronic inflammation... ..	11	7	17		35	
IN THE CAVITY OF THE TYMPANUM AND EUSTACHIAN TUBE.						
Inflammation of the mucous membrane, with obstruction		28	6		34	55
Inflammation of the mucous membrane, with stricture of the Eustachian tube	16		3		19	
Inflammation of the mucous membrane, with obliteration of the Eustachian tube.....	1				1	
Inflammation of the cellular tissue of the cavity of the tympanum.....				1	1	
IN THE LABYRINTH.						
Erethitic nervous deafness.....	60	21	52	7	140	152
Torpid nervous deafness	3	8	1		12	
Deafness and dumbness.....	8				8	
	104	96	92	8	300	300
188 Relieved.						

Dr. Kramer commences the second section of his work with some remarks on the classification of the diseases of the ear. We have not space to enter further into the subject than to notice his own system, which is natural and comprehensive, being founded on the only sure basis, the difference in structure of the parts affected. "In all diseases of the ear," he says, "it should be our endeavour, by a careful examination of the affected organ, to determine the seat of the disease and the organic relations of the symptoms, as this is the only way by which we can attain to a knowledge of the most suitable and effectual mode of treatment in each individual case." (P. 97.)

He first divides the diseases respectively into those of the external ear, those of the middle ear, and those of the internal ear, as in the preceding table.

The diseases of the external ear are: 1. Diseases of the Auricle, comprising, *a*, erysipelatous inflammation; *b*, scirrhus degeneration; *c*, boils. 2. Diseases of the auditory passage, comprising, *a*, erysipelatous inflammation; *b*, inflammation of the glandular part of the investing integument; *c*, inflammation of the cellular tissue; *d*, inflammation of the periosteum. 3. Diseases of the membrana tympani, comprising, *a*, acute inflammation; *b*, chronic inflammation.

The diseases of the middle ear are: 1. Inflammation of the mucous membrane of the middle ear: *a*, with the formation and accumulation of mucus; *b*, with stricture of the Eustachian tube; *c*, with obliteration of the Eustachian tube. 2. Inflammation of the cellular tissue and periosteum in the cavity of the tympanum: *a*, the acute form of true internal inflammation of the ear; *b*, the chronic form of it.

The diseases of the internal ear are, the two forms of nervous deafness: *a*, with erethism or excitement; *b*, with torpor.

In presenting to our readers what to us seems most worthy of notice in the account which Dr. Kramer gives of these different diseases of the ear, our object will be to give such an abstract of the whole as will convey some idea of the scope of Dr. K.'s work, of the unsparing, but we must confess too well justified, spirit of criticism which pervades it; and of the impulse which it seems to us calculated to communicate to the study of the diseases of the ear. He has proved we think, that, contrary to the generally received opinion, the diseases of the ear are nearly as capable of accurate and fruitful investigation as are those of the eye; and we consider that he has succeeded to a considerable extent in bringing our knowledge of their nature and proper treatment to the level at which our knowledge of the eye has arrived.

We pass over altogether the account of the diseases of the auricle. To form a correct diagnosis of the diseases of the auditory passage and membrana tympani, and negatively of the diseases of the other parts of the ear, it is above all things necessary that the greatest attention should be paid to the investigation of the auditory passage by ocular inspection. To the neglect of this inspection, and to the neglect of the investigation of the state of the Eustachian tube and cavity of the tympanum by means of the catheter and injections, is to be attributed our very defective diagnosis in this class of diseases, and consequently the inefficiency, not to say injuriousness, of our treatment of them.

"In consequence of the curvature of the auditory passage, the bottom of it and the membrana tympani occupy such a position, that they cannot be seen distinctly, in the usual natural width of this canal. To effect the examination, the patient's head must be inclined strongly to the opposite side, and the ear being directed towards the sun, the auricle is drawn well upwards and outwards, whilst the tragus is at the same time pressed outwards. By this arrangement, the rays of light are allowed to fall on the parts to be examined, provided the auditory passage and membrana tympani are sound. But when morbid changes have taken place in these parts, a particular instrument is requisite, in order to remove the curvature of the passage and convert it for the time into a straight canal, so that the light may easily penetrate to the bottom. Hildanus, as was observed above, first mentioned an instrument for this purpose, under the name of *speculum auris*. But the arms of his instrument have a pyramidal shape unfavorable for the introduction of it into the auditory passage. Since Hildanus

no mention of this very indispensable instrument has been made, not even by Itard, Saissy, and Deleau. Jos. Frank, indeed, speaks of a *speculum auris*, without describing it, and Wright rejects as totally deficient in utility Weiss's three-armed speculum; whilst he praises his own instrument as simple but effective, though he does not describe it." (P. 117.)

Dr. K.'s speculum, of which he gives a figure and description, differs from the one in common use in this country only in having the further end more taper, with less of the oval form, and in having a wider funnel-like orifice. The inner surface of the funnel ought to be painted black or corroded, so as to be quite dim. A polished surface, by reflecting the rays of light, confuses the examination. It is of some importance to attend to this, because a contrary opinion seems to prevail; for all the specula we have seen in this country are highly polished on the inner surface of the funnel; nay, we meet with gilded ones, in order, as we are told, that the reflexion may be greater.

"For the examination of the auditory passage," continues Dr. K., "no artificial illumination can equal, much less supersede, the light of the sun's rays. We must therefore always have recourse to them in important cases, such as operations in the vicinity of the membrana tympani. Notwithstanding, however, the failure of all attempts to find a substitute for the rays of the sun, not always at our disposal, enough has been effected to enable us during dull weather successfully to examine the more evident forms of disease." (P. 119.)

After pointing out the inefficiency of the means proposed by Cleland, Bozzini, Deleau, and Buchanan, for this purpose, Dr. K. gives us a description of an improved apparatus invented by himself, the principal part of which is an Argand's lamp; and the great mass of light from this falls upon a concave metallic mirror, whence it is reflected to a convex lens, through which, and through a second convex lens contained in the tube of the apparatus, the rays of light pass so as to be collected into an intensely bright focus, of the size of a two-groschen piece, (a shilling.)

"But whether," (says Dr. K.) "we employ the sun's light or artificial light, the speculum ought always to be had recourse to in important cases. Its assistance is especially necessary to enable us to accomplish the examination with the eye alone, without being obliged, like Itard, Curtis, Wright, Buchanan, Tod, and others, to use the probe. This is improper, partly because it affords no correct diagnosis, but chiefly in consequence of the great delicacy and sensibility of the membrana tympani." (P. 121.)

The number of all diseases has been much multiplied by the practice of considering the different effects of some primary diseases, such as inflammation, nay even certain symptoms, as so many separate and independent forms. The result of this has been great confusion in the whole range of pathology, but perhaps there are no organs in which the practice has been carried to a more vicious extent than in the case of the eye and the ear. "Careful observation," says Dr. K., "has taught me that all the different forms of disease which affect the auditory passage depend on inflammation of its constituent structures, and they are very characteristically defined, according as one or other structure is affected. The effects of these forms of inflammation have no claim to be considered as separate forms of disease, but naturally come under that which has given rise to them." (P. 125.) On this principle the diseases of the auditory passage really to be distinguished, are those already mentioned, viz. erysipelatous inflammation; inflammation of the glandular part of the

investing integument; inflammation of the cellular tissue, and inflammation of the periosteum.

Those great accumulations of hard, dark-brown wax in the auditory passage, which so often produce deafness, are the result of erysipelatous inflammation. "This accumulation of ear-wax," says Dr. K., "has been very unjustly laid to the charge of neglect and want of cleanliness on the part of the patient. It is itself a diseased product, the removal of which no patient can effect, as the naturally very sensitive auditory passage becomes still more so in consequence of the erysipelatous inflammation, and even at its anterior part cannot endure the slightest touch." (P. 129.)

Mr. Buchanan, in his "Illustrations," devotes a chapter to the subject of "Syringing the Meatus." He insists very much on the advantage of employing a syringe with a slender point, in order that there may be a counter-current of the injection, which will force all loose extraneous bodies outwards. He also recommends that the syringe should be no larger than to contain three drachms of injection. He fears that, with a syringe having a larger point, and containing more water, "there will be danger of rupturing the membrana tympani and dislocating the ossicula auditus, from the quantity of liquid thrown into the meatus, and the counter-current of the injection being obstructed by the point of the syringe."

"All this," Dr. K. remarks, "is useless and unnecessary precaution. The water flows out very well in spite of the thick pipe, and brings away with it the loosened ear-wax. No stream of water from a strong ear-syringe can injure the membrana tympani, particularly as the injection is not directed upon it, but upon the hardened ear-wax. The small syringes usually employed for this purpose, are therefore worse than useless, because they contain too little water, protract the operation to an indefinite extent, and, in consequence of their long pipe, there is danger, in restless patients, of pushing it too deep into the passage and causing unnecessary pain, if not injury of the membrana tympani. I therefore use an ear-syringe which is three inches long, contains an ounce and a half of water, and is furnished anteriorly with a pipe three quarters of an inch long, and with an opening wide enough to give passage to a strong stream of water." (P. 132.)

As to the fluid used for the injection, Dr. K. says that any thing but tepid water is perfectly superfluous. He has never seen a case of hardened ear-wax, in which, with tepid water, it was not syringed out in half an hour. (P. 133.)

Inflammation of the glandular part of the investing integument of the auditory passage is what is commonly known under the name of *catarrhal* inflammation of the external ear. From this inflammation, and from that of the membrana tympani, the polypous growths of the auditory passage derive their origin.

"By vascular inspection," says Dr. K., "we discover (in the inflammation we are at present considering) on the walls of the auditory passage, inflammatory redness, and partial swelling, which when it attains a farther degree of development and greater elevation, receives the name of a fleshy excrescence or polypus. These excrescences are either soft, spongy, of a bright red colour, vesicular, bleeding on every touch, sensitive, covered with a copious mucous secretion, pedunculated, globular, or they have a broad basis, almost as hard as cartilage or even as bone, insensible, bleeding little or not at all, and rather of a pale red colour. The inflammatory origin of these polypi has been unjustly called in question." (P. 141.)

Collections of thickened, hardened ear-wax are considered, among many

other things, as causes of this catarrhal inflammation; but Dr. K. says (p. 145,) that repeated experience has decidedly convinced him "that even a very long continuance of hardened ear-wax in the auditory passage cannot affect the glandular integument.

"Inflammation of the cellular tissue in the auditory passage, or *phlegmonous inflammation*, is distinguished," says Dr. K., "from the inflammation of the glandular integument by the abscess which always takes place in the former, while such a termination is altogether foreign to the latter. By its rapid course, and the absence, of examination with the probe, of a curious bony surface, this inflammation is just as decidedly distinguished from the inflammation of the periosteum. It might be more readily confounded with internal inflammation of the ear, which comes on with even more violent symptoms; but there is always this diagnostic mark that the internal inflammation of the ear, at least at its commencement, leaves the auditory passage perfectly free. This phlegmonous inflammation is usually confounded by authors, under the general appellation of *otitis externa*, with the slight catarrhal form of the inflammation of the glandular integument." (P. 172.)

Phlegmonous inflammation of the auditory passage is rather a rare form of disease; it is generally produced by cold.

Inflammation of the periosteum of the auditory passage (*metastatic inflammation*,) is always attended by caries, and, when any exfoliation of the diseased bone takes place, the ulcerated part begins to heal, but obliteration of the passage, to a greater or less extent, is very apt to take place. As in all analogous cases, the part, even when opened up by art, has a constant tendency to grow together again.

"Even in the most favorable cases," says Dr. K., "it is difficult, not so much to open up the parts which are grown together as to maintain them open." We always succeed best by touching the parts with lunar caustic, which, by means of a slender caustic-holder, should be carried through and through the part which has been opened up, in its whole length." . . . "Even after cicatrization of the separated parts, hearing remains very dull, partly because the operation does not restore the natural form to the auditory passage, and partly because the *membrana tympani* has always suffered from the preceding inflammation, having become thickened." (P. 181.)

Diseases of the Membrana Tympani. "The very concealed situation of this membrane," says Dr. K., "has for a long time kept up the most erroneous hypothetical opinions of its morbid states. Under their influence we at one time looked upon a separate diseased state of the *membrana tympani* as impossible." . . . "Objective symptoms," he continues, "ought alone to decide as to the diseased state of the *membrana tympani*, particularly as it is accessible to investigation by our senses in its whole extent. We can observe distinctly whether it is shining or is dim; whether it is transparent or opaque, and this, again, whether partially or in its whole extent; whether it presents its depression, or whether, in consequence of thickening of the membrane, this has become indistinct, or is altogether obliterated, &c." (P. 184.)

Much has been said of a too great relaxation of the *membrana tympani*: and Saissy supposes that this might be produced by destruction of the tensor tympani muscle by suppuration; while Beck thinks that, by violent sneezing, the tendon of the tensor tympani might be ruptured. All this is hypothetical; and just as groundless and fanciful is the admission of a too great tension of the *membrana tympani*.

Cleland supposes it probable that, by a violent clap of thunder, noise of a cannon or the like, the position of the *membrana tympani* may be altered, being forced inwards upon the small bones, and so rendered concave outwardly. The means by which Cleland proposes to remedy this supposed disorder are: first, to oblige the patient to stop his mouth and

nose, and force the air through the Eustachian tube into the barrel of the ear by several strong impulses, which will probably push the membrane back to its natural state. But, in case of an obstruction of the Eustachian tube, the second method proposed is to introduce into the meatus auditorius externus, an ivory tube, as near to the drum as can be done, and so exactly fitted that no air can go in or out. The surgeon then taking the farther small end in his mouth, draws out by suction what air is contained in the auditory passage, by which means the membrana tympani, says Cleland, will be drawn back to its natural state, and thus the person will hear as before. This silly speculation of Cleland, which is quoted by Mr. Curtis in his "Essay on the Deaf and Dumb," p. 94, is mistaken by Dr. Kramer for Mr. Curtis's own. Dr. K. therefrom takes occasion to accuse Mr. C. of gross ignorance, for not knowing that the externally concave form is the natural state of the membrana tympani. With what justice soever Mr. Curtis may be accused of ignorance and pretension in other respects, the charge falls from him in this particular instance, unless we consider his designating the part of Cleland's paper which he quotes, "as containing some ingenious remarks on the construction of instruments proposed to remedy some kinds of deafness proceeding from obstructions in the external and internal auditory passages," as in approbation of all that is therein contained.

Dr. K. denies the possibility of the membrana tympani being torn without previous inflammation, in contradiction to the assertions of Duverney, Leschevin, Itard, Saissy, and Curtis.

"It is true," he says, "that we meet with perforations of the membrana tympani, without the discharge of a mucous or purulent fluid; but, even in such a case, a viscid, mucous, puriform matter in small quantity is always found at the bottom, and the membrana tympani, so far as it is not yet destroyed, reddened, thickened, and opaque. We arrive at such certain results only by means of a close inspection of the auditory passage in bright sunshine, and with the assistance of a speculum; whilst, with the probe, which the above-named practitioners make use of, we never could discover such morbid changes."

In regard to the degree of hearing which may exist along with a perforated membrana tympani, Dr. K. makes the following just observations:

"Many authors, and among them even Itard, are still of opinion, that perforation of the membrana tympani does not necessarily weaken the hearing, an error occasioned by their having judged of the hearing only by the way the patient could carry on a conversation, instead of employing, as a standard of measurement, some determinate sound. Repeated careful observation of such patients as had their membrana tympani perforated, has satisfied me that this morbid state has not indeed for its consequence total deafness, but undoubtedly a greater or less degree of dulness of hearing, according to the extent of the destruction of the membrane, according as it has taken place before or behind the handle of the malleus, and according as it is solely confined to the membrane, or is accompanied by the loss of the small bones or other morbid changes in the ear. I have seen patients who could hear my watch indeed at the distance of five or six feet, but yet not at the distance of thirty feet as a sound ear can. With this slight degree of deafness they were on the whole not much incommoded, although there were to be seen in the membrana tympani holes the size of a pea; whilst other patients could scarcely hear the same watch at the distance of half an inch. In such cases as the latter, however, there must have been, besides the perforation, other morbid changes in the cavity of the tympanum, &c." (P. 192.)

The diseases of the membrana tympani which Dr. K. admits as established are only the inflammatory diseases with their consequences, as

opacity, thickening, perforation, purulent secretion, and formation of polypi. In acute inflammation, the membrane is found, on examination, to be blood-red, swollen, rough as if it were covered with small glands, somewhat projecting, and opaque. Bundles of blood-vessels are seen ramifying in it, and the point of insertion of the handle of the malleus can no longer be distinguished.

"The inflammatory character of this form of disease," says Dr. K., "especially in the milder cases, has been hitherto much overlooked, and, under the name of earach, it has been subjected to the most improper local stimulating treatment. Itard indeed speaks of a purely nervous earach, in which his dread of the local use of opium had been quite groundless, if his so-called nervous earach were any thing else but an inflammation of the membrana tympani. This, to be sure, is made worse by opium, and would certainly have been recognized by him as inflammation, if he had not neglected the local investigation of the membrana tympani. . . I have certainly never observed earach without inflammatory appearances, either in the auditory passage or in the membrana tympani; and therefore, to every one who does not understand how to make, and is not in the habit of making, the examination of the membrana tympani with the speculum, and in bright sunshine, I would deny the right to pronounce an opinion as to the existence of a *nervous otalgia*. . . . Inflammation of the membrana tympani is distinguished from internal inflammation of the ear not only by its greater mildness, but especially by the morbid changes of the membrane perceptible from the very commencement of the disease. Any such morbid appearances are at first always wanting in internal inflammation of the ear, notwithstanding the most violent feverish symptoms; and, in the farther course of the malady, they occur only when the membrane is threatened with bursting by the accumulated matter, and has also become involved in the inflammatory process." (P. 195-6.)

Inflammation of the membrana tympani seems to be as little known to surgeons from actual examination, as certain of the internal inflammations of the eye, such as inflammation of the capsule of the crystalline lens. And, indeed, we need not be surprised that the diseases of an organ so difficult of access to investigation by our senses as the ear, should be so little known, when the affections of the eye, an organ so conveniently placed for our examination, are yet far from being universally understood by surgeons as they ought.

The acute form of inflammation of the membrana tympani is much less frequent than the chronic form, and the latter much more commonly leaves behind it other diseases.

Hardened ear-wax, according to Dr. K., has no more share in the production of inflammation of the membrana tympani than it has been already shown to possess in causing inflammation of the glandular integument of the auditory passage. "Sometimes, indeed," he says, "after the removal of the ear-wax, blood-vessels are observed running along the handle of the malleus, and terminating at its head; but they always disappear in a very short time without any assistance from art." (P. 197.)

The effects of inflammation of the membrana tympani are, opacity, thickening, hardening, perforation, polypi, &c.; all of which permanently injure hearing.

We are sorry to be under the necessity of greatly abridging Dr. Kramer's very excellent and interesting discussion respecting the perforation of the membrana tympani. It is not long since this subject attracted much attention, and it is well known to our readers that it was for a memoir on it that Sir Astley Cooper had the Copley Medal awarded to him by the Royal Society. "Indeed," says Dr. K., "so great was

the interest which the operation excited when first proposed, that it degenerated into a sort of mania. It was thought that in it was discovered an effectual remedy against deafness of every kind, and even against deafness and dumbness." Even now, we believe, the true indications of the operation are very imperfectly understood by surgeons in general.

"If the membrana tympani," says Dr. K., "be considerably thickened, quite insensible to the touch of the probe, hard as cartilage, and if the hearing has suffered considerably, there remains nothing to be done for its improvement but the perforation of the membrane. But, even in this case, the only one which really indicates the operation, we ought to have recourse to it only when both ears are affected in the same manner with a considerable degree of deafness, or when the second ear, not having the membrane indeed diseased, yet suffers from an incurable deafness. We must, however, even in this case, satisfy ourselves by the most careful investigation that the ear to be operated upon does not suffer from any other disease, by which the result of the operation might be rendered negative." . . . "Sir Astley Cooper supposed that the perforation of the membrana tympani was indicated principally in cases of obstruction of the Eustachian tube, and in extravasation of blood in the cavity of the tympanum; but, as he does not appear to have been acquainted with the catheterism of the Eustachian tube, his diagnosis of the closure of it was altogether uncertain. . . But, suppose obstruction of the Eustachian tube and extravasation of blood in the cavity of the tympanum really existed, these morbid states might be treated much more certainly and efficiently by the introduction of the catheter into the tube itself, than by the perforation of the membrane." . . . "The success related by Cooper as attending his operations in several patients ought not to lead us to a favorable conclusion regarding the operation, because the diagnosis was defective, and the respective cases too indeterminately characterised. . . But as he has evidently had no experience on the subject, his opinions carry no weight with them.

"As regards the indication for the operation, Itard falls into the same error as his predecessors. If he declares somewhat more decidedly than they that the operation is admissible only when there is an *invincible* obstruction in the Eustachian tube, he yet errs, inasmuch as he does not examine whether the obstruction might not really be capable of removal. The single case in which, for thickening merely of the membrana tympani, Itard was induced to perform the operation, was followed by a favorable result, exciting to farther attempts in similar cases. Saissy recommends perforation only in hardening and thickening of the membrane; but in reference to it he does not once allude to the Eustachian tube, and cavity of the tympanum. The only case in which he has performed the operation with success is so incidentally mentioned that little value can be put upon it.

"Deleau has discussed this operation very fully in a monograph on the subject, in which he expresses his opinion that the operation may be performed with advantage in thickening of the membrane, in obstruction and obliteration of the Eustachian tube, and in obstructions of the cavity of the tympanum." . . . "But his indications for operating are not more satisfactory than those of his predecessors; and he did not take pains to obtain an accurate diagnosis by a thorough examination of the Eustachian tube. It is accordingly not surprising that he should not have obtained any permanently good result worthy of being named in all the twenty-five cases operated on by him. . . The subject has been handled not less superficially by all other authors who have occupied themselves with it, either theoretically or practically. We must therefore repeat that, with the exception of a single successful case recorded by Itard, *no other* is known in which the operator was authorised in perforating the membrana tympani. We also repeat that the only thing which really indicates the operation is merely thickening of the membrana tympani, unaccompanied by any other disease of the ear. . . If it should be had recourse to in these very few excepted cases—and of these the diagnosis ought to be very carefully formed,—we must adopt a method by which the complete removal of a piece of the membrane will be effected." (P. 202, *et seq.*)

Solutions of the acetate of lead are much recommended and employed by Dr. K. in the affections of the auditory passage and membrana tympani.

"In chronic inflammation of the membrana tympani, whether with or without perforation, I employ, with the greatest benefit, a solution of the acetate of lead. It is poured, either cool or lukewarm, into the diseased ear two or three times a day. We may, according to circumstances, raise the strength of the solution from one grain to ten of the salt to one ounce of water: in which latter case the membrana tympani will be covered by the fine powder of the salt of lead, and the action of it kept up so much the longer." (P. 223.)

We doubt very much that by this means the action of the salt will be kept up so much the longer, as what is deposited is merely an inert oxide. Moreover, we suspect that opacity of the membrana tympani will frequently result from such practice, especially if there be any abrasion of the surface of the membrane, in the same manner as we find takes place in the eye on the employment of a wash containing the acetate of lead. If there be any ulcer of the cornea, or any abrasion of the conjunctiva, oxide of lead is deposited on the part, and forms a white speck.

"Instead of the acetate of lead," says Dr. K., "the nitrate of silver, the sulphate of zinc, alum, &c., in solution, have likewise been recommended; but, in my trials of them, these remedies, as well as the pyroligneous acid, in the proportion of one scruple to water one ounce, have always excited painful irritation in the auditory passage, when used in a strong solution; whilst, in a weaker, they had no effect at all. The acetate of lead removes very quickly and effectually the disagreeable ammoniacal odour of the discharge." (P. 224.)

Diseases of the Middle Ear. "We comprehend under this term only those diseases which are developed in the cavity of the tympanum and in the Eustachian tube, and which are accessible during the lifetime of the patient, to our diagnosis at least, if not also to our therapeutical agents." . . . "Only inflammation of the mucous membrane of the Eustachian tube and of the cavity of the tympanum, with its different terminations and consequences, as well as of the cellular tissue lying under every mucous membrane, can in reality be put down as distinctly marked forms of disease. These are therefore alone considered here. (P. 240.)

Inflammation of the mucous membrane of the middle ear is described under different names by Alard, Itard, Saissy, and Deleau; but, by Curtis, Wright, Buchanan, Jos. Frank, and all other writers, it is either totally neglected or discussed only as a simple mechanical obstruction of the Eustachian tube. As the Eustachian tube forms one of the most important objects of investigation and treatment to the surgeon, we shall make pretty copious extracts from that part of Dr. Kramer's work relating to it; more particularly as, with the exception of Deleau, no other writer appears to possess the same practical acquaintance with it.

The tubes which Dr. K. recommends for introduction into the Eustachian canal are the same as those which were employed by the Montpellier surgeons, as well as Sabatier and Itard. They are made of silver, inflexible, six inches long, and of a thickness varying from that of a crow-quill to that of a goose-quill, straight except at the anterior extremity, which is bent, for the length of about half an inch, at an angle of 144 degrees, corresponding to the lateral situation of the mouth of the Eustachian tube. The tubes, or catheters, are in their whole length of the same caliber. At their posterior or nearer extremity, they are furnished with a funnel-shaped dilatation, half an inch long, for the purpose

of receiving the tube of the injecting syringe, &c. At this dilatation, and in the same horizontal direction with the beak of the catheter, there is a ring soldered to, according to the direction of which we can judge of the position of the beak, when this is introduced into the nose and out of view. The tube is moreover graduated with inches, which is of great advantage in the repeated introduction of it. We pass over Dr. K.'s account of the mode of introducing the catheter into the Eustachian tube, and also the contrivances of Itard, Deleau, and himself, for retaining it in the Eustachian tube during the process of injecting.

"Through the catheter thus fixed," says Dr. K., "lukewarm water was injected into the Eustachian tube and cavity of the tympanum by Wathen, Douglas, Saissy, Itard, and others, and they supposed they could judge of the state of the middle ear according to the different sensations thereby produced in the ear, or according to the total absence of each sensation. But these aqueous injections are attended with great difficulties and defects, of which I have sufficiently convinced myself by multiplied experience.

Having stated his reasons for rejecting the aqueous injections, Dr. K. proceeds—

"All these weighty objections led Deleau to the happy idea of employing air instead of water for the investigation and treatment of the diseases of the middle ear, by which he has completely attained his object." (P. 250.)

We do not mean to advance any positive claim for Cleland in this matter, but the following quotation from his paper in the *Philosophical Transactions* looks very much like a suggestion of the principle:

"The pipes of the syringe," says Cleland, "are made small, of silver, to admit of bending them as occasion offers, and for the most part resemble small catheters: they are mounted with a sheep's ureter, the other end of which is fixed to an ivory pipe, which is fitted to a syringe, whereby warm water may be injected; or they will admit to blow into the Eustachian tube, and so force the air into the barrel of the ear, and dilate the tube sufficiently for the discharge of the excrementitious matter that may be lodged there." (*Phil. Trans.*)

In order to perform this operation, the air was compressed by Deleau in an apparatus, the construction of which he has hitherto kept secret. Dr. Kramer says, however, that it is very easy to construct such an apparatus; and accordingly describes and figures one, of his own contrivance, in the present work.

After declaring that the objections raised by Deleau against the inflexible silver catheter are altogether groundless, and that the elastic ones recommended by him do not deserve the preference Deleau claims for them, Dr. K. comments very severely on the hasty assertion of this author, that the elastic catheter may be pushed into the cavity of the tympanum, and employed as a dilating instrument in contraction of the Eustachian tube. "We here refer," says Dr. K., "to what has been said above of the diameter of the Eustachian tube, which, in its narrowest part, even in the sound state, does not admit the finest elastic catheter, much less in the state of stricture." It is not Deleau only he criticises, but animadverts also on Magendie and Percy, the reporters on Deleau's work to the Institute, for allowing such an assertion to pass without censure.

"After the catheter has been introduced into the Eustachian tube, and fixed by means of the frontlet, if the air-douche is to be employed for the investigation of the

middle ear, the patient is placed close to a table, on which he leans the elbow next to it, and in this position he holds with the hand of that side the pipe of the air-press, previously filled with compressed air. The operator then introduces the metal beak of the pipe into the funnel-shaped dilatation of the catheter, applies his ear close to that which is under examination, opens the cock of the machine, and listens to the sound made by the air rushing into the middle ear." . . . "When the Eustachian tube and cavity of the tympanum are perfectly free and open, the air flowing in strikes without interruption and with an audible shock against the membrana tympani. When the first shock of so strong a stream of air is over, or, if it was not very violent, we hear, during the continuance of the streaming in of the air, a blowing and rustling in the ear of the patient, which appears to issue out of the auditory passage, and to fill his ear in its whole extent. All variations from this sound, the peculiarities of which can only become perceptible by often-repeated observation, are morbid, and lead to very certain conclusions as to the particular diseased changes in the organization and function of the ear." (P. 257.)

The above extract shows that auscultation is not neglected as a means of obtaining information regarding the state of the ear; and it is the only instance we recollect in which the sounds to be ausculted by the application of the ear or stethoscope are produced artificially. Laennec, we believe, attempted to derive aid for the diagnosis of diseases of the internal ear by listening to the sounds produced, or which he expected might be produced, by the entrance of air naturally into it; but he was unacquainted with the method just noticed, which affords a pleasing proof of the great advance of a method of exploration which, on its first discovery, was ridiculed by a large proportion of the profession in all countries. We think it quite possible that the diagnosis of the diseases of other cavities—e. g. the intestinal canal and bladder,—may also be improved by the auscultation of sounds resulting from the artificial introduction of fluids into them. M. Deleau also speaks of a *bruit sec de la caisse*, and a *bruit muqueux*.

If the air-douche does not penetrate to the membrana tympani, Dr. K. makes use of catgut bougies for opening up the passage. He gives directions for their introduction, which we cannot stop to notice.

In treating of inflammation of the mucous membrane of the middle ear, with accumulation of mucus in it, Dr. K. has the following remarks:

"It is surprising enough, considering the great narrowness of the Eustachian tube, and the frequency of catarrhal complaints in the nose and throat, that the obstruction of the Eustachian tube with mucus is yet on the whole so rare. It certainly occurs much more frequently in moist seasons and in damp climates; as, for instance, in cities on the sea-coast, from which (as Hamburg, Stettin, Swinemünde, Danzig, Memel, Cüstrin, &c.) the greater number of patients of this kind come to me. This being the case, it is astonishing that the English (so-called) Ear-surgeons, to whom this disease must occur very often in the foggy climate of London, have scarcely an idea of the proper diagnosis of it, much less of a rational mode of treatment for it." (P. 266.)

Dr. Kramer strongly disapproves of the attempts which have been made to remove obstructions of the Eustachian tube by sending in injections through a perforation in the mastoid process, or through a perforation in the membrana tympani; and asserts, that the only safe mode of procedure is by a direct action on the guttural orifice of the Eustachian tube, and from thence on the collections of mucus found in it.

"Wathen, Douglas, Saissy, Itard, and also Deleau at the commencement of his practice," continues Dr. K., "employed aqueous injections into the Eustachian

tube, which however Deleau afterwards gave up, and confined himself exclusively to the air-douche in the treatment of this disease. I have also for some years employed the water douche with great advantage; and I still consider it very appropriate, and cannot join in the excessive objections (some imaginary) brought against it by Deleau. . . . Notwithstanding the undeniably good effect of aqueous injections, I have, however, of late given the preference to the air-douche, on account of the extraordinary facility, convenience, and cleanliness with which it may be managed." (P. 274.)

Inflammation with thickening of the mucous membrane of the Eustachian tube, producing stricture, has been found incurable in the hands of Dr. K.; nor has he found perforation of the membrana tympani of any use in such cases, as the mucous membrane of the cavity of the tympanum is also implicated in the chronic inflammation. The introduction of catgut bougies into the Eustachian tube has not been followed by any permanent benefit. Obliteration of the Eustachian tube must be considered, for the same reason, as quite incurable.

"Saunders and Itard," says Dr. K., "had hopes in this case from perforation of the membrana tympani. The cases which the latter communicates, however, although they have presented a favorable result, prove nothing for the applicability of the operation in obliteration of the Eustachian tube, because such a state of the latter was not in a single instance diagnostically determined by Itard. In my opinion, perforation is in this case in particular to be totally rejected, because the inflammation which has disorganized the mucous membrane of the Eustachian tube to so considerable an extent, cannot have let the mucous membrane of the cavity of the tympanum escape; whence the result is rendered more than doubtful." (P. 307.)

Inflammation of the cellular tissue and periosteum in the cavity of the tympanum, known under the name of *true internal inflammation of the ear*, presents, according to Dr. K., two forms, the acute and chronic. This is a very dangerous disease, as it may involve not only the whole ear, but also extend its ravages to the membranes of the brain.

"Krukenberg," says Dr. K., "describes under the too general name 'internal inflammation of the ear,' (to which name the catarrhal inflammation of the mucous membrane of the cavity of the tympanum has likewise a just title,) the acute form; the proper phlegmonous inflammation of the cellular tissue in the cavity of the tympanum. It is only to be regretted that he and his contemporary Abercrombie, to whom we are indebted for an excellent description of the chronic form of this inflammation, have examined in their patients neither the external auditory passage nor the Eustachian tube."* (P. 317.)

Diseases of the Internal Ear. As we cannot make any direct observations on the internal ear, we must, in forming our diagnosis, join to the subjective symptoms negative objective symptoms: that is, we must observe whether or not there be any deviations from the natural state of the other parts of the ear sufficient to account for the diminished hearing.

After rejecting the various hypothetical diseases of the internal ear which have been admitted by authors, apparently only for the sake of fixing on some one part as the seat of a disease they were quite ignorant of, Dr. K. adds,

"The only undoubted form of disease of the labyrinth,—that is, of the nervous

* "Abercrombie," Dr. K. adds, "diminishes the value of his observations by considering the cerebral symptoms as primary, although this view may be easily shown to be incorrect from his own cases." This is a mistake of Dr. K., as Dr. A. maintains just the opposite opinion. See Edinb. Journ. vol. xiv. p. 301; and Treatise on Diseases of the Brain, p. 33, 2d Ed. 1829.

expansions contained in it,—is functional derangement of it, under the form of changed manifestation of activity; in other words, *nervous deafness*. In this affection we have a changed, a weakened power of hearing, without any organic deviations in the whole of the ear. The term *nervous deafness* has been hitherto often enough misused as a cloak for ignorance in any doubtful, obscure disease of the ear; and it has become so suspected, that we might now be disposed rather to run into the opposite extreme, and deny its existence altogether. But this would be equally wrong. The disease certainly exists; although we may doubt the capacity of many who have used the term to apply it rightly. For, as the absence of every organic change in the ear constitutes the principal condition of purely nervous deafness, we cannot accord the right to decide on its existence to those who do not understand how to investigate the ear, and especially the middle ear, by the catheterism of the Eustachian tube. For this reason, no confidence is to be placed in any of the English so-called aurists, Curtis, Stevenson, Wright, &c.; to whom may be added the other writers on the diseases of the ear,—Saunders, Swan, Lentin, Beck, Vering, Jos. Frank, and others; even Saissy not excepted. Itard and Deleau alone, by their expertness in the use of the catheter, form an honorable exception in this case.” (P. 332.)

Dr. K. admits two forms of nervous deafness; the one attended by erethism or excitement, the other with torpor. Noise in the ear forms the essential point of difference between the two. The noise in the ear, without exception, belongs to the erethitic form, whilst it is quite foreign to that characterized by torpor. But the noises in the ear are not to be looked upon as a characteristic symptom in any degree conjoined with nervous deafness only, for they accompany many other diseases of the ear. “It follows,” says Dr. K., “that noise in the ear is not of itself a disease, but accompanies the most different diseases of the ear, and that often in a very indeterminate and inconstant manner. Swan, Saunders, Curtis, and others have especially fallen into this error, which has proved the more prejudicial as, on their authority, many patients, merely for the reason that they were troubled with noises in the ear, have been looked upon as affected with nervous deafness, and treated accordingly.” We may add, and patients, merely because their deafness was not attended by noises, have had the membrane of the tympanum in each ear perforated.

For establishing the diagnosis of nervous deafness, we need scarcely remark, after what has been said regarding the examination of the ear, that Dr. K. insists on the most minute local investigation of all parts of the ear, and on the use of the air-douche as a means of exploration.

“In the treatment as in the diagnosis,” says Dr. K., “the English surgeons have deviated the farthest from the right path, although they affirm they have obtained by their method brilliant results. Cleland’s cautious declaration, ‘as for the diseases that are called *nervous*, I must leave them to the learned gentlemen of the Faculty,’ has found no echo among his countrymen. With unheard-of audacity, Curtis recommends, in *doubtful* cases of nervous deafness, purgatives, especially calomel, as long as the strength permits. In decided nervous deafness, that is, in such cases as Curtis, with his very defective knowledge of ear-diseases, considers as nervous deafness, he recommends blisters, antiphlogistic diet, calomel again, and sulphate of magnesia.” (P. 350.)

Dr. K. likewise condemns, although in gentler terms, the remedies advised by Swan, Saunders, Wright, and Buchanan, as being “all discordant to the true character of nervous deafness;” and “nearly quite as objectionable, he says, are the methods which are recommended by Beck, Vering, Jos. Frank, Saissy, and others.”

Deleau abstains altogether from the treatment of persons affected with

nervous deafness. He has not even ventured to tread in the path which Itard had indeed struck out for the rational treatment of this form of disease, but which, after a few timid steps, he relinquished.

Dr. K. rejects the two cases given by Itard as examples of the idiopathic paralysis of the auditory nerve, conceiving them to be founded on uncertain paralysis, and boldly and confidently declares "that there is not to be found in any work hitherto a single case of nervous deafness founded on an exact and carefully made diagnosis, and that as yet there has existed no proper treatment of nervous deafness."

Dr. K. makes known a mode of treatment for nervous deafness, which, if we are to judge by the successful cases he adduces and his own recommendations, we must acknowledge to be one of the greatest accessions to the therapeutics of the ear which has been made since the catheterism of the Eustachian tube. Though his mode of treatment is strictly local, Dr. K. does not neglect the general state of the constitution, strengthening the nervous system when weak, improving the digestion, regulating the functions of the bowels and uterus, and not even overlooking the condition of the intellectual functions. "But we must not flatter ourselves," he says, "that, by fulfilling these general indications, we shall improve the local affection of the auditory nerve, even in the slightest degree. . . . When the health is altogether unimpaired, as is frequently the case, we must, without delay, have recourse to the local treatment of the diseased auditory nerve." (P. 353.)

This local treatment consists in the introduction of the vapour of acetous ether into the cavity of the tympanum, through a catheter introduced into the Eustachian tube. The vapour is generated, in a proper apparatus, at the common summer temperature. Itard formerly attempted this mode of treatment, but he generated the vapour at too high a temperature; so that, instead of the simple vapour of the acetous ether, an acrid kind of gas was introduced into the ear. This gas acts very injuriously in cases of erethitic nervous deafness, although, according to Dr. K., it is the best adapted for torpid nervous deafness.

In illustration of the good effects of this mode of treatment, Dr. K. gives us ten cases, one of which only our limits will allow us to quote here.

"CASE. Miss M. Wolff, eleven years old, in other respects quite healthy, had been affected, without any apparent cause, for a long time, with dulness of hearing and buzzing in both ears, for which no remedies had hitherto been employed. Both the external auditory passages, and also the Eustachian tubes, were found quite healthy. Injections of tepid water into the middle ear excited severe pain, which abated only late in the evening. With the left ear she could hear the watch at a distance of six inches, and with the right ear at a distance of two inches only. In January, 1832, ethereal vapours were for the first time introduced daily, alternately into the left and right middle ear; and no other remedy was employed at the same time. At the end of the first four weeks the buzzing in the ear completely stopped, and only returned again for a very short time in consequence of a violent exertion of the body. The treatment was continued without interruption for four months. The patient remained perfectly well in health; she had no occasion to make the slightest alteration in her usual mode of life; and, at the end of that time, the hearing distance on the left side was increased from six inches to eight feet, and on the right side from two inches to six feet. A residence in the country interrupted the treatment for nine months, in the course of which time the improvement which had been gained did

not undergo the slightest diminution. In January, 1833, the same mode of treatment was renewed, and was continued (with progressive improvement of the hearing distance,) for the space of five months : at the end of that time the patient could hear the watch at fully thirty feet distance, and might therefore be considered as quite cured. The buzzing in the ears had not again occurred." (P. 361.)

It is to be wished that this mode of treatment, with all the necessary precautions as to diagnosis, manipulation, &c., were put in practice in this country by competent surgeons. How suspicious soever one might feel inclined to be of the great efficacy attributed to it by Dr. K., in some degree its discoverer, the plain statement of the facts which he brings forward forces us to admit that it is a mode of treatment of the highest value.

We remarked in a preceding page that Mr. Swan wishes to establish that, in a great proportion of habitually deaf people, the auditory nerves are not affected. He thinks that, in many such cases, the deafness is owing to a thickened state of the lining membrane of the cavity of the tympanum, involving the small branches of the tympanic nerve. We are of opinion that this theory of Mr. Swan accords very well with the good effects derived from Dr. Kramer's practice in nervous deafness just noticed : as it appears probable that the acetous vapour may act directly on the tympanic nerves.

The fourth chapter of the second section of Dr. K.'s treatise is devoted to the consideration of Ear-trumpets; and the fifth and concluding chapter to Deaf-dumbness. In the latter chapter, Dr. K. enters into a critical examination of all the cases which have been published from time to time as cases of cured deaf-dumbness, and sums up the whole by the following declaration : "After this complete examination of all the accounts of cured deaf and dumb, we dare decidedly assert that, as yet, no individual deaf and dumb person has been really cured; that is, has been brought into such a state that he, as in the case of a sound hearing person, could, by means of the sense of hearing, hold uninterrupted conversation with his fellows under all circumstances." (P. 399.) The so-called cases of cured deaf-dumbness, Dr. K. contends, are only cases in which the person had been taught to speak and understand what was said to him, by closely watching and imitating the motions of the lips of his instructor or other person addressing him. The hearing has in no case been in any considerable degree restored.

After the extensive analysis which we have given of the treatise of Dr. Kramer, it is hardly necessary for us to recommend it in the strongest terms to our readers. It is unquestionably, taken as a whole, the most valuable work we possess on the subject of diseases of the ear generally; and, after the labours of Itard and Deleau, it must be regarded as contributing more to the progress of acoustic surgery than any other modern publication.

Since the preceding pages were written, we have the satisfaction of knowing that a translation of the whole Treatise of Dr. Kramer has been undertaken by a scientific gentleman, already distinguished in his profession, and will be speedily in the hands of British surgeons. We would fain hope that the accomplished translator is destined to redeem the character of auricular surgery in this country.

ART. V.

1. *Principles of Pathology, and Practice of Physic.* By JOHN MACKINTOSH, M.D., Lecturer on the Practice of Physic in Edinburgh, &c. *Fourth Edition.*—Two vols. 8vo. pp. 524, 546. London, 1836.
2. *Principles of Pathology, and Practice of Physic.* By JOHN MACKINTOSH, M.D. &c. *From the last London (Third) Edition, with Notes and Additions.* By S. G. MORTON, M.D. &c. &c.—Two vols. 8vo. pp. 462, 509. Philadelphia, 1836.

WE received, nearly about the same time, the two books of which we have transcribed the titles; and it certainly speaks favorably for any work when a *third* edition of it, republished in a foreign country, is met by one still newer on its reaching the mother-land of both. The volumes before us are unquestionably not common ones, or we should not have thought it necessary to notice them further than to announce their general character; as, of all publications, new editions of systematic treatises generally present the least matter for interesting analysis or criticism. But it is impossible to inspect any portion of Dr. Mackintosh's book without being at once convinced that it is very dissimilar to the ordinary systematic treatises on medicine, and that the author possesses but a scanty share of the qualities of an ordinary compiler. In truth, although bearing the outward and visible signs of a compendium of the Practice of Physic for the industrious student, it has very little of the sustained soberness and dull gravity supposed to characterize such collections; but a vast deal of the raciness of originality, and not a slight tincture of the waywardness of genius. Judging from his book alone, we should have considered Dr. Mackintosh the least likely person in the world to meditate the plan of a formal treatise on Medicine, or to submit to the drudgery of filling up its details; but we suppose the necessities of the teacher rather than the natural predilections of the physician gave occasion to the work, in the first place; and, although the favour of the public has gradually swelled it from the humble original form of "Heads of Lectures" into the comprehensive "System of Pathology and Practice of Physic," which is now before us, it still bears characteristic marks of its origin, and of being the production of a mind hardly suited to the humble task it had undertaken. We can fancy how admirably the licence of oral instruction would harmonise with the freedom and boldness and occasional vehemence of the author, while he seems cabin'd, cribbed, confined, by the requisites of written composition. These qualities of the writer necessarily confer on the work the character of inequality, both as to extent and variety of the matter contained in different parts of it, and the manner in which this is worked up. Many chapters in it are certainly extremely meager and unsatisfactory, and quite unsuited to direct the student in the cases of which they treat; and others are devoted rather to the exposition of some peculiar views of the author, than to the elucidation of the best established principles of pathology, or the inculcation of the soundest practice. In a good many cases, also, Dr. Mackintosh has failed to lay before the reader the latest pathological facts, or to notice modes of treatment resting on the highest authority; and, still more frequently has he contented himself with illustrating his

subjects by reference to a few works of domestic origin and of not very recent date, when he might have been supplied with much more copious and striking illustrations from other authors of more extensive experience and higher authority. Still, with all these defects, and perhaps with some others both of matter and manner, we feel it our duty to admit, with the American editor, "the decided superiority of Dr. Mackintosh's Pathology and Practice of Physic over almost all works of a similar character," that is to say, all the systematic works hitherto produced in this country as manuals for students and junior practitioners. The whole form and spirit of the work is essentially pathological and scientific, and in direct opposition to the empirical plan so often adopted in publications of a similar class; it wages relentless war with old prejudices and obsolete theories, and, we may truly say, with all their sectators and abettors dead and living; it everywhere inculcates the most active and the boldest treatment; it loses no opportunity of holding up to honour and praise the excellence and dignity of our art; and, fraught as it is throughout with the spirit of its author, it is especially calculated to communicate to the youthful mind that most precious of all lessons, enthusiasm in the study and practice, and confidence in the powers of medicine.

We should have been glad if the work of Dr. Mackintosh had found in the American Editor a more mechanical and book-learned foster-father, who might have supplied from his own stores or from the works of others the deficiencies in the original of which we have complained. This has, however, been but very imperfectly done, although a good deal of valuable matter has been added in some places which Dr. Mackintosh will do well to retain in his next edition. But much more is wanting to make the work a complete Introduction to the practice of physic; and we earnestly advise the author, when another edition is called for (as doubtless will be the case ere long,) to take effectual measures to have the defects remedied and the omissions supplied. All that would seem necessary for this purpose is for the author, or, what would probably be still better, some more bookish and less busy friend, to read carefully the standard systematic works and monographs on different diseases published in France, Germany, and our own country, during the last ten years, and transfer to his pages such pathological and practical facts as would at once render the different parts of the work of more equal proportions, and bring down the state of knowledge to the present day in those instances where it lags behind. By way of instancing the deficiencies alluded to, we may state that we do not observe in these volumes any reference to the *three* most recent French Dictionaries, nor to such important pathological works as those of Louis, Chomel, Bouillaud, Piorry, Cruveilhier, and others among the French; and to no recent German author; neither do we find once noticed the splendid and invaluable work on morbid anatomy by Dr. Carswell, nor Dr. Copeland's Dictionary, nor even the Cyclopædia of Practical Medicine; although if any work can be considered as embodying the present state of medical science in this country, it is surely that elaborate and learned collection.

We will now, without attempting to criticise, much less to analyse the whole work, notice a few subjects in it here and there, which we noted as most deserving the reader's attention, whether for their novelty, singularity, or practical importance. We should be sorry if our extracts pre-

vented any of our readers from making themselves masters of the original, which is calculated to gratify and benefit the man of experience no less than the student.

The first part of Dr. Mackintosh's work treats of "the general history of inflammation and fever, with the pathology and treatment of individual fevers;" and, although from the nature of the subject necessarily containing a good deal that is doubtful and questionable in doctrine, is characterised throughout by sound and what may be called common-sense views of pathology, and by the inculcation of the most rational and vigorous practice. Like all exercised and sober-minded physicians of the present day, in his views of the nature and treatment of fevers, Dr. Mackintosh is an eclectic, and, in accordance with the cool and practical spirit of British medicine, never hesitates to lay down his theories at the command of experience. Without being a Broussaian, he adopts all the valuable improvements introduced by Broussais into the treatment of fever, while he repudiates all fantastical and feeble practice, from whatsoever authority it may emanate or whether countenanced by theory or not. "The best axiom in physic," says Dr. Mackintosh, "is, to get rid of diseased action as quickly as possible, as there is no saying what mischief is to follow in the train of consequences." In the American Edition an elaborate exposition of the Broussaian or physiological Doctrine of Fever is introduced, on the principle, as stated by the editor, that "however much medical men may differ in opinion respecting this theory, there is an obvious propriety of its being understood by every member of the profession."

Agreeing with Dr. Fordyce in his often-quoted opinion of the universality of fever, Dr. Mackintosh gives the following propositions as embodying his own opinions and as containing "general views which are admitted by all writers whose opinions are of any value, although the same facts have been called by different names."

"1st. That the functions of almost all organs are embarrassed in fever from the very beginning, and often for days before the sense of coldness is felt by the affected person. 2d. That the blood leaves the surface of the body, and accumulates in internal organs, and that, unless they are overwhelmed, the system makes an effort to relieve herself, and certain combined phenomena take place, which are designated by the terms 'reaction, fever.' 3d. That inflammation of all parts of the body will give rise to fever. 4th. That inflammation may supervene during fever, without being the primary cause of the febrile commotion. 5th. That the nervous system is involved as well as the vascular; and, 6th, It follows as a consequence, if all these things be true, that the blood itself must be in a diseased condition." (P. 35.)

The following is his classification of fevers, which, although open to obvious objections, enables the author to arrange his facts conveniently. The most palpable defect is that which classes the gastric fever of children, usually termed *Infantile remittent*, with the remittent fevers of climatorial or local origin, and the yellow fever as essentially belonging to this class, when it is well known that the disease so termed, although occasionally strictly a remittent fever, is often of quite a different character.

"1st. Intermittent Fever.

"2d. Intermittent or Yellow Fever: Infantile Remittent.

"3d. Continued Fever, subdivided into four orders, viz.

Fever from functional derangement.

— from inflammation.

Fever from congestion.

A mixed form of fever between these three last, but in which congestion predominates, commonly denominated Typhus or Synochus.

"4th. Hectic fever.

"5th. Fevers attended with eruptions.

"6th. The Plague." (P. 37.)

The peculiar practice of bleeding in the cold stage of intermittent fever, introduced by Dr. Mackintosh a good many years since, is well known to most of our readers. This practice naturally takes a prominent place in the chapter treating of ague, and is illustrated and supported by many new cases. Without admitting that such treatment is necessary in the great majority of cases of ague, as we know from considerable experience that the disease is perfectly and safely and speedily curable without it, we cannot deny that the practice is in particular cases indispensable, and indeed affords the only means of saving life. We must therefore always consider medical science as under great obligations to Dr. Mackintosh for having introduced this practice, and for having advocated it with such praise-worthy zeal. We are far from wishing our younger brethren to have recourse to it in ordinary cases, much less habitually, in the treatment of ague; as we are of opinion that this would be not merely useless but highly injurious; but it is incumbent on every one to make himself acquainted with the mode of its application, the principles on which it is founded, and the safety of its administration. For our own parts, we do not hesitate to say that, had we been acquainted with this practice twenty years ago, we think we could have saved some lives which we allowed to be hopelessly lost beneath the overwhelming stupor of inter-tropical ague.

The following brief extracts exhibit the pathological grounds on which Dr. Mackintosh was led to employ this remedy, and the general mode and limits of its application; but we earnestly recommend to the notice of our readers the whole chapter on this subject, and the numerous cases by which the practice is illustrated and confirmed.

"Cold Stage. The first circumstance which we distinctly perceive, is diminished circulation of blood in the extremities, then a sense of coldness, and with it a feeling of weakness. These are evidences of an irregular determination of blood, by whatever cause produced; and in proportion as blood accumulates in the vessels of internal organs, their functions become impeded. The lungs shew their gorged state, by the short, difficult, and anxious breathing; by the impossibility of inflating them beyond the least degree; and by the violent dry cough which occasionally takes place. The livid appearance of the cheeks, lips, and mucous membrane of the mouth, is an additional proof of the embarrassed state of the lungs, shewing that the blood is not properly decarbonized. The disordered functions of the brain in this stage, depend, I imagine, principally upon the gorged state of the lungs, and also upon the overloaded state of the right side of the heart, preventing the free return of blood from the head. The disordered functions of the brain may also be produced by a change in the balance of the circulation of the vessels of the head, independently of the state of the lungs and heart. The tremors may probably be attributed to an accumulation of blood in the vessels of the brain and spinal marrow. The sense of cold seems to be owing partly to the state of the nervous system, and partly to the state of the lungs. The pain in the head and loins, and oppression at the præcordia, may be fairly attributed to the same causes. The muscular prostration, and feeling of sinking, are not owing to actual debility, but to obstructed action, in consequence of the above-mentioned condition of organs. The proof of all which circumstances is to be found in the fact, now well known, that abstracting blood, in the cold stage, will immediately

remove not only the difficulty of breathing, the pain in the head and loins, the disordered functions of the brain, (when these exist,) the oppression at the præcordia, &c. but will also stop the rigors, restore the strength of the pulse, increase the heat of the whole body, and cause the sensation of cold to vanish in an instant." (P. 80.)

"Bleeding, in the cold stage, will, in a great majority of instances, cut it short; in fact, it will rarely fail in stopping the existing paroxysm, and, on many occasions, it has prevented a return of the disease to which the patients had been long subject, and by which they were nearly worn out. It is difficult to determine what quantity of blood it will be necessary to draw in any given case; sometimes it requires twenty-four ounces; I have known three ounces suffice, and, in one case, an ounce and a half produced the full effect. The larger the orifice in the vein, the greater is the chance of arresting the disease at a small expense of blood; but, in many cases, the operation is attended with considerable difficulty, from the convulsive tremors which affect the whole body. I was once successful in arresting the disease by bleeding, in a cold stage which had continued twenty-six hours; but I regard this as an extreme case. The blood sometimes only trickles down the arm, and, as the system is relieved, the stream becomes larger and stronger, till at last it springs from the orifice, and frequently before six ounces are taken, the patient will express relief from violent pain in the head and loins, and it will soon be observed that he breathes more freely. The tremors become slighter and slighter, and, by the time a few more ounces are abstracted, they will cease altogether, and with them will vanish the painful sensation of cold. The pulse will be found stronger, and a gentle moisture will be observed on the body. If the patient be properly managed with respect to bed-clothes, neither the hot nor sweating stage will in general follow. Most of the patients who have been treated by myself, or by my pupils under my immediate inspection, have fallen asleep immediately after the operation; but some have even got up and dressed themselves." (P. 86.)

Of course, Dr. Mackintosh employs the ordinary means during the interval for preventing the return of the paroxysm. His mode of prescribing quinine "is to give three doses of five grains each, with half an hour of interval, immediately before the expected paroxysm; as, three grains every half hour, beginning about three hours before the expected paroxysm." (I. p. 130.) Our own experience leads us to recommend the practice of the American editor, rather than that of Dr. Mackintosh; a practice which we have scarcely ever found to fail, even with patients continuing to reside in the malarious locality which produced the disease.

"We would wish to be understood," (says Dr. Morton,) "as not according with the practice of administering quinine in the large and frequently repeated doses advocated by the author. In this country, it is seldom requisite to administer more than twelve grains during the first interval, and half that quantity during the following interval, to cure nearly all the cases which occur. Instances, however, frequently present themselves in which the exhibition of a larger quantity than is necessary to attain the end, would be positively injurious; so that practitioners have adopted the safer plan of giving a grain each hour, and limiting the amount to the number of grains specified." (Vol. I., p. 131.)

We even find that half the quantity above stated, or one grain every two hours, is quite sufficient in the majority of cases to cure the endemic agues of England.

The following interesting note on the etiological relations of intermitting fever is extracted from the additions in the American edition: it originates from the French school.

"M. Brachet has paid some attention to the phenomena of intermittents. Basing his theory upon the peculiar views which he takes of the offices and connexions of the two nervous systems, the cerebro-spinal and ganglionic, he attributes the primary

lesion to their derangement, to the exclusion of irritation as understood by the physiological school. The ganglionic system presides over all the actions of organic life, as nutrition, secretion, &c. while the nervous system of relation has charge of the connexion with the exterior world. According to him, the phenomena of intermittent fever are such as can only be produced by derangement of the healthful influence of the first, communicated to the second; and no matter whether the modifying impression is made externally by atmospheric or physical agents, or takes place internally by marsh miasm; the first effect is produced on the nerves of the organic movements. That the result of this impression is not inflammation, he proves by the following experiments. Towards the end of October, 1822, he took for seven nights in succession, at midnight, a cold bath in the river Saone. The first bath was of a quarter of an hour's continuance; the second half an hour; from this he went on protracting the time, until he was enabled to remain in the water a whole hour. After each bath, he laid [lay] down in a warm bed and underwent considerable reaction, with increased warmth, followed by profuse sweating; after which he went to sleep. At the expiration of seven days, M. Brachet omitted his experiments, but was surprised to find, during the following day, that between twelve and one o'clock, p. m. all the attendants of a true intermittent paroxysm made their appearance. As he experienced no inconvenience during the interval, he allowed this artificial fever to proceed, and experienced six distinct attacks. Upon the seventh night following the last bath, he was called upon to ride some distance upon professional business, a short time prior to the expected invasion; the exercise thus taken produced excitement of his system, which was kept up by placing himself near a large fire, and from that time no accession reappeared. This account corroborates, in a measure, the statement of M. Roche that intermittence of cause will produce a habit, more or less difficult to counteract, in proportion to the fixedness of it. In speaking of these conclusions of M. Brachet, it is understood, that the paroxysm is simple in character, unaffected by organic lesions, which will modify its type and be productive of such complications as are found in these fevers of serious grade." (P. 103.)

The Article on Continued Fever is full of excellent matter pathological and practical. We regret much that want of space prevents us from making any extracts from it.

The author seems less at home on the subject of Yellow Fever; but the chapter contains many interesting details, more particularly those tending to prove the non-contagious nature of the disease as it has prevailed of late years in the south of Spain and in our garrison of Gibraltar. To this part of the work the American editor has made some valuable additions chiefly on the morbid anatomy of the disease as seen of late years in America. The dissections here recorded tend strongly to support the view of the gastric origin of the disease, first advanced, we believe, by Tommasini and the other Italian physicians in their account of the fever of Leghorn in 1804.

The following observations from the same chapter prove that the mercurial plan of treating yellow fever, formerly so prevalent in America as elsewhere, has given way to a more rational system, at least; whether to one more successful in its results, remains probably yet to be ascertained. Dr. Morton is so obviously a follower of Broussais, that his authority may be somewhat questionable, without any impeachment of his honesty.

"It is at least evident, that the exhibition of the enormous quantities of mercury which have been given both in this disease, and in other forms of fever, is not attended with the unfailing success which alone could warrant its employment; and the after consequences are so frequently destructive to health and comfort, that the opposite extreme of total proscription of this powerful article of the materia medica has been fallen into; a circumstance much to be deplored, as in proper doses and at suitable

periods of the affection, its use is highly serviceable. The gastric character of yellow fever appears at the present era to be well ascertained; and the clinical reports of those who have treated it in accordance with the pathological doctrines which are becoming every day more widely disseminated, afford evidence of the superior utility of strictly antiphlogistic measures. If the general system is affected with considerable reaction, venesection is required; but in most cases the prompt application of leeches, or cups, [cupping glasses] as near as possible to the diseased organs, is followed by a decided amelioration of the symptoms. They should not be placed, however, so immediately in contact as to run the risk of increasing excitement. As an auxiliary measure, the sedative impression of cold has a beneficial effect, and is peculiarly grateful to the patient: iced drinks, ice applied to the head, if this organ presents symptoms of disordered action, and the injection of cooling enemata into the bowels, are the modes of application. The administration of small doses of calomel, or blue pill, will admirably promote the cure when the force of the local irritation has been reduced; and it only remains to unlock the secretions and gradually lead them back to a natural state." (P. 147.)

There is no part of his work in which Dr. Mackintosh shows a greater spirit of innovation, or more disregard of ancient views and practice, than in his account of Eruptive Fevers. Here he evidently has taken Broussais for his guide, but he has superadded all his own therapeutic boldness to complete a picture which cannot fail to have a strong influence on the inexperienced mind. We think it therefore right to interpose a word of caution to those who shall proceed for the first time to treat eruptive fevers upon the principles here laid down. We differ very little from Dr. Mackintosh either in his views or practice; but we believe that a good deal of discrimination is necessary in selecting the cases to which the latter is most applicable. Subjects previously debilitated or labouring under depression or irritation of the nervous system, whencesoever derived, will not always bear the *medicina perturbatrix* here advocated; but we have no manner of doubt that, applied to epidemics in country places, in the army and navy, and indeed generally to individuals previously in good health and without any constitutional idiosyncracies, it will be the means of saving innumerable lives. We can only find room for a couple of extracts explanatory of his pathological views and practice in such cases. Although the latter is, he conceives, supported by the former, he wishes to found its claim to general adoption on the more solid basis of experience.

"After a long and patient investigation, comparing the symptoms with the appearances found on dissection, I have come to the opinion, that the mucous membranes are the seat of the disease, the nature of which is inflammation, more or less acute and extensive; and that the part generally most implicated, is the mucous membrane of the lungs, particularly in measles and small-pox; while that of the bowels is the part chiefly, if not principally, affected in urticaria, roseola, and miliary fever. The eruption is merely to be regarded as a symptom, and by no means a universal symptom. It is well known that many cases of eruptive fevers are very mild, and require little treatment, while others are extremely severe and fatal; and that a great deal depends upon the eruption, whether it comes out at the usual period, and whether it remains out, or prematurely and suddenly recedes. The eruption, in point of fact, ought to be regarded as a natural blister, acting as a contra-irritant." . . . "These circumstances, it appears to me, are clearly proved, 1. By attending to the constitutional commotion and oppression of the whole system, and the morbid changes in the functions of various organs, for many days before the appearance of the eruption. 2. By the relief afforded, in general, after the free development of the eruption. 3. By the increased suffering and danger which exist when the eruption is deficient, or when

its repulsion suddenly and prematurely takes place. 4. By the relief which follows proper treatment; and, 5, by the appearances observed on dissection." (Vol. i. p. 177.)

The following brief extracts show the application of this practice to the chief eruptive fevers.

"If these observations be not fallacious, bleeding to a sufficient extent ought not only to relieve the constitutional symptoms during the eruptive fever, but after the eruption has appeared, ought to destroy it. Observations and experiments frequently performed and repeated by myself, and by my pupils, enable me to state, that these are facts, which I shall not be afraid to repeat before the highest authorities in the profession, and stake my professional reputation upon the general result of the plan; having already seen recoveries take place, under this treatment, in cases in which such a happy termination was scarcely to be anticipated. It also follows, if these things be true, that even in ordinary cases there are two periods more critical and dangerous to the patient than any other; these are, the period at which the eruption ought to make its appearance, and that at which it should naturally disappear. In the first case, the internal disease has gradually become extensive and severe, and wants relief by means of the eruption. In the second, the disease which had existed at first, having been relieved by the external irritation, is now in danger of being reproduced by its cessation; and this of all others is the period at which, in the slightest form of the disease, the patient stands most in need of care and vigilant attention to the condition of internal organs." (Vol. i. p. 183.)

Scarlet Fever. "In the slighter forms of scarlatina, very little treatment is necessary, further than confinement, attention to the bowels to keep them free, and the antiphlogistic regimen. In such cases, however, the medical attendant should be careful to watch diseased action, at the period when the eruption naturally declines, for reasons already mentioned. Formerly I saw many fatal cases of scarlatina, when I practised according to the opinion of the schools, carefully abstaining from blood-letting, and using all the means recommended to support the strength; but I occasionally observed patients snatched from the grave by considerable bleedings from the nose, and at times when it was thought the loss of an ounce of blood would prove destructive. These circumstances, together with the appearances found on dissection, led me to bleed in many subsequent cases, and I have never had occasion to regret it. Blood has been drawn at all periods of the disease, in cases where the state of the lungs and brain required it; and should the operation be performed during the period of the eruption, it will disappear, if a sufficient quantity of blood be taken. When the inflammation of the throat runs very high, I know no remedy productive of such certain and immediate good effects as general bleeding, but should the patient's strength be already reduced, leeches are to be preferred." (Vol. i. p. 189.)

Dr. Morton informs us that the profession in the United States is divided in opinion as to the use of venesection in Scarlatina, but that he himself has resorted to it in every case, and with the most gratifying results. "It is almost in vain (he says,) to treat the congestive form in any other way; and, in the violently inflammatory disease, there is no substitute for the lancet." (Vol. I., p. 195.)

Measles. "In the slighter forms of this disease, as in scarlatina, very little treatment is necessary, further than confinement to one room, the exhibition of gentle laxatives, and low diet. The medical attendant should be still more watchful in this disease than in scarlet fever, at the period when the eruption naturally recedes. In the severer forms of measles, bleeding is often necessary during the eruptive fever, when the pectoral symptoms run high, and appear threatening; and also when coma and convulsions take place, both of which are more likely to happen, but particularly the latter, if the child be suffering from difficult dentition." . . . "When bleeding is necessary, it ought to be performed in the manner already described when treating of inflammatory fever; a sufficient quantity should be taken as early as possible in the disease, and the operation ought to be repeated at short intervals; but when the bron-

chitic symptoms have been allowed to go on neglected till the air passages are gorged with mucus, bleeding is a very questionable remedy, and no doubt often does irreparable mischief." (P. 198.)

Small-Pox. "Bleeding has been often employed, and strongly recommended in this disease, particularly during the eruptive fever; but it has as often been condemned, because it has destroyed that strength which, it is alleged, is so much required in the latter stages of the diseases. But the same language is used in the purest inflammatory fevers. In all the successful cases of confluent small-pox occurring in adults which I have treated, except one, (amounting in all to about eighteen,) bleeding was employed, and largely employed, in the eruptive fever, to moderate what was thought to be local inflammation, without suspecting that they were cases of small-pox: several of the sufferers were my pupils, who had had themselves bled before they sent for me. In a number of instances, blood has been drawn even after the appearance of the eruption, and with decided benefit; but, upon the whole, it is perhaps best at that period to trust to leeches for relieving local inflammations." (P. 204.)

According to the author's views of the nature of the disease, this is the class of affections among which *Erysipelas* should have been placed, and not among the chronic diseases of the skin, to which it has scarcely any other relation than that of locality. Its pathology, according to Dr. Mackintosh, is almost identical with that of eruptive fevers, and its treatment is similar. His observations on this disease are particularly worthy of notice.

"It is truly lamentable," he says, "to reflect how fatal erysipelas has always been, and continues to be, not only in public hospitals but in private practice. . . . Many of my medical acquaintances are as much afraid of erysipelas as they would be of the plague; others, from the dread of typhoid symptoms, and of mortification and putridity, aggravate the disease by improper remedies. . . . How are these bad consequences to be prevented in subsequent cases? The answer is easy, and the practice simple, provided medical men would use the common sense with which they are endowed, and give up a prejudice that has been inculcated on their minds from the earliest period of their lives,—forgetting that there is any thing mysterious in erysipelas,—and learning to treat each case that comes before them upon its own individual merits." (Vol. ii. p. 266.)

The remedies on which Dr. Mackintosh places his chief dependence are those found beneficial in other inflammations, viz. general bleedings in the early stage, followed up by the application of leeches to the inflamed part, purgatives, antimonials, opiates, &c.

The second part of Dr. Mackintosh's treatise comprehends the "Diseases of the Organs connected with the Digestive System;" that is, all the diseases having their site in the abdomen and its outlets, whatever be their nature. The only one of this interesting class of affections which our limits permit us to notice is the Asiatic cholera, of which disease an account is given for the first time as it was witnessed by the author during the presence of the epidemic in Edinburgh. We regret much that we can only notice this chapter very briefly, as it possesses, on many accounts, particular interest.

Dr. Mackintosh's opportunities for witnessing the disease were most ample, and he appears to have devoted himself to its investigation and treatment with all the energy of his character. Into the Drummond-street Cholera Hospital, of which Dr. M. was physician, there were received 461 patients, of which number 291 died; and of these no less than 280 were examined most minutely after death; the greater number

by Dr. Mackintosh's own hands, and each examination occupying generally two hours.

At the commencement of the disease, Dr. M. was a decided believer in the contagious nature of cholera; but this belief was greatly weakened by what he witnessed and underwent during the epidemic; his opinion now being "that, if it be contagious, it is not so in any very great degree." Indeed, after some of the details supplied by Dr. M. in reference to this point, we are rather surprised that he admits its contagiousness in any degree. He himself, as well as the young medical officers, seem almost to have lived in the hospital, going to sleep from exhaustion on the very beds of the dying and the dead. A few nurses had the disease, but not severely, and almost all those attacked were persons addicted to drinking.

"None of the house-surgeons, the number being between twenty and thirty, who were seldom out of the wards, had the disease, although their bodies must have been ready to receive the contagion, if fatigue of body, anxiety of mind, and want of sleep, ever predisposed any person to take a disease." (Vol. i. p. 344.)

"In the Drummond-street Cholera Hospital there were 280 bodies examined. Two, and sometimes three hours, were spent in examining each body. From the economical arrangements of the Board of Health, and the difficulty of procuring a proper apartment, the dead-room, where these examinations were conducted, was a miserable place about eight feet square; generally six or eight persons were present, sometimes more; and in an inner apartment, about ten feet square, there sometimes lay six dead bodies. Not one of those who frequented this den of death, and who had their hands imbrued in the secretions of the dead for six hours out of the twenty-four, were affected with cholera, although their hands were irritated and punctured daily!" (P. 345.)

None of the arguments in favour of the epidemic nature, and against the contagion of cholera, appear to us more striking than the fact that *animals* suffered in various places where the epidemic was raging. This was particularly remarked in Austria, as appears by a report of the Medical Faculty of Vienna, of which notice is taken in another part of our present Number. Similar phenomena were witnessed during the prevalence of the disease in Scotland.

"Mr. Dick, the professor of veterinary medicine in Edinburgh, published a paper in the *Veterinarian* for April, 1833, wherein it is shown that cholera was by no means uncommon among domestic animals, particularly horses and cows, during the epidemic season in Edinburgh. They had diarrhœa and rigid cramps; the blood was viscid and dark; the discharge from the bowels resembled that from the human subject. Several animals died suddenly, and the appearances on dissection resembled those in the human subject, particularly in the stomach and bowels." (P. 345.)

The appearances observed on dissection are minutely given, and are extremely interesting. We can only here notice a few of the most prominent. Dr. M. most properly separates the morbid appearances which there was reason to believe unconnected with cholera from those that unquestionably were so; and also distinguishes the appearances observed in persons dying in the stage of collapse, from those found in such as survived this, and fell victims to the subsequent fever. The following is the condition of the blood and of its distribution in persons who died in the collapsed stage, and is extremely striking:—

"The blood attracted our attention in the first dissection, and it had the same appearances to the last. It was dark coloured, and had lost much of its fluidity:

this was expected, from the accounts that had previously reached us from other countries. But we were astonished to find that it was contained in the arteries and veins, in the most minute capillary, as well as in the larger vessels; that it had the same dark colour in both sets of vessels, some of them containing a small quantity, others being enormously distended. The capillaries and large veins on the surface of the body contained as much blood after death as during life. On opening a vein in the dead body, the blood flowed almost as readily as it had done during life in the same person. The surface therefore retained the same dark appearance as it presented during life, and the muscles were of a dark red colour. In the act of death, or immediately afterwards, in all other diseases, the blood leaves the capillaries, recedes from the surface, and collects in the heart and large veins near it; the arterial system is generally quite empty, but occasionally a little blood is found in the aorta." (Vol. i. p. 347.)

The brain was found generally gorged with blood, and the ventricles containing a good deal of serum. In above 150 cases in which the spinal marrow was examined, there was found a good deal of serum and great vascularity of the membranes. The lungs were found gorged with dark viscid oily-looking blood. Clots of fibrine were found in the cavities of the heart, and the larger blood-vessels were often lined with a membraniform sheath. The pneumo-gastric, phrenic, and splanchnic nerves were often found very vascular. The state of the intestines and other abdominal viscera is minutely described. There were marked morbid alterations in all; but, we believe, none that had not been previously observed.

Dr. Mackintosh advances nothing very satisfactory on the pathology of cholera. Like most other enquirers, his attention is arrested by the morbid condition of the blood, and he justly attributes an important part to it in the production of the symptoms. He clearly shows that the phenomena are very far from being explicable by the common notion of "a loss of balance in the circulation," as it is termed, or by congestion; and indeed disproves the existence of such pathological states. The following observation is partly the statement of a fact, and partly a pathological conjecture: it throws no new light on the subject.

"This thick blood, after finding its way into the arterial capillaries, cannot easily escape, owing to its viscosity. This is one cause of the slow motion of the blood. In many parts these small vessels give way, and ecchymosis is the consequence. This appearance has been seen in every organ of the body. It is not unreasonable to suppose that the blood becomes viscid by the abstraction of the serum, and that this is effected by the copious watery discharge from the stomach and bowels. If this view be correct, it will enable us to apply the doctrines by which Boerhaave attempted ineffectually to explain the pathology of inflammation to cholera Asiatica." (P. 355.)

We are sorry to say that Dr. Mackintosh is able to add but little to our previous knowledge, or rather ignorance, of the proper treatment of cholera. In the stage of collapse, he condemns bloodletting, purgatives, rubefacients, and seems to have derived little benefit from any other means: "we fairly tried all the remedies recommended, but observed no advantage from a large majority of them. Thus Stevens's saline solution, which it was stated had operated like magic elsewhere, was tried and laid aside."

"It was not found serviceable in any one case, and was injurious in many, by exciting vomiting and purging. The oxide of bismuth and nitrous acid were prescribed according to the directions received; but we never could discover any advantage from their use, although they were less injurious than most of the other remedies." (P. 362.)

But the most interesting part of this article is that which details the administration and effects of saline injections into the veins, a practice which seems to have been carried to a greater extent by Dr. Mackintosh than by any other physician. One hundred and fifty-six patients in all were injected in the Drummond-street Hospital, and of these twenty-five recovered. This seems but a small proportion, but it is satisfactory to know that it is *double* the proportion of patients who recovered from a similar state of collapse without the use of injections; and Dr. Mackintosh afterwards states that "not one of the patients operated on had a chance of recovery by any other means." "The substances injected were in the following proportions: muriate of soda, $\frac{3}{4}$ ss.; bicarbonate of soda, $\frac{3}{4}$ iv. ;* water, lb. x. The temperature was from 106 to 120°. . . . The good effects of the injection were rapid in proportion to the heat of the solution, but patients could not bear a higher temperature than that above mentioned." (P. 365.) It seems to have been of great importance to have the solution carefully prepared and cautiously administered; and we refer the reader for minute directions on these points to the work itself. Half an hour was consumed in the gradual introduction of the ten pounds of liquid.

"It was wonderful (says Dr. Mackintosh) to witness the effects speedily produced by the injection. These I shall now state under the following heads:—

"1st. *On the Pulse.* It is remarkable how speedily the injection affects the pulse, making it perceptible after it had ceased to be felt at the wrist. By the time four ounces were introduced, the pulse could generally be distinctly counted; and, when about three pounds were introduced, it became a tolerably good one, although it might be still feeble, and perhaps rapid.

"2d. *On the Cramps.* The effect on this symptom was quite remarkable: they generally ceased as soon as the pulse became good, and seldom troubled the patient again. Many cases that appeared to us hopeless, from age and the ravages of previous disease, were injected solely with a view to mitigate the sufferings of the patients produced by cramps.

"3d. *On the Temperature of the Body.* The effect on the animal heat is also almost instantaneous: the body, which could not previously be heated, now becomes warm, and, instead of a cold, damp exudation on the surface, there is a gentle and genial moisture.

"4th. *On the Respiration, &c.* The respiration, however weak previously, soon became stronger. It sometimes happened, when about four pounds of the injection were introduced, that the respiration became rather laborious, which generally gave way after more fluid was thrown into the system. The voice, which had been whispering, now became quite natural.

"5th. *On the Countenance.* In proportion as the pulse and the temperature were restored, so did the countenance improve. The eye, from being sunk, became prominent; the shrinking of the features, and the dark colour of the face and of the body, generally disappeared. The expression, in fact, become animated, and the mind lively.

"6th. *The restlessness and uneasy feelings* vanished. The despondency, vertigo, tinnitus aurium, præcordial oppression, gave way to pleasurable feelings; and I have not unfrequently seen patients sit up in bed immediately after the operation, in perfect possession of themselves, and speak with joy on the sudden transition from agony and death to happiness and life.

"7th. *Thirst*, however urgent it might have been previous to the operation, soon ceased after its commencement.

"8th. *The secretion of urine*, in general, soon returned after the injection; but in

* These proportions were afterwards doubled.

this we were more frequently disappointed than in any of the other favorable symptoms.

"9th. *The period of death* was undoubtedly postponed, sometimes for hours, more frequently for days, and sometimes even for weeks; and in some cases a perfect recovery took place." (P. 367.)

These effects are, as Dr. Mackintosh states, truly wonderful; and, although the practice may be, in its curative results, much less important than could be desired, it must certainly be looked upon with triumph and pride as one decided step towards enlarging the boundaries of our art. There is something particularly striking, and surely not a little affecting, in the instantaneous resuscitation of these persons from the very verge of the grave; and the contemplation of such things, and of the feelings of those who witnessed them, and whose hands were the instruments by which they were brought about, is sufficient to reconcile us to many of the evils and vexations with which the practice of medicine is so frequently associated. So far from being dissatisfied with the results of this practice, Dr. Mackintosh assures us that he will follow it up still more vigorously should occasion offer.

"Should I ever have charge of cholera patients again, I shall, profiting by the experience I now possess, use the saline solution at an earlier period of the stage of collapse,—nay, at its commencement,—in order to lessen the thickness of the blood before organic mischief is done, and to prevent the formation of the fibrinous clots so frequently, nay, almost invariably, found in the right side of the heart, extending into the branches of the pulmonary artery, also in the great venous channels in the head. It appeared to all who watched the symptoms, and witnessed the post-mortem examinations, that these plugs were formed during the progress of the stage of collapse, and not after death." (P. 371.)

We ought here to close our notice of Dr. Mackintosh's work, as we have already far overstepped the limits we had traced to ourselves. Were we to notice all that remains of novelty and interest in it, we should fill many more pages than we have yet done. We cannot, however, conclude without briefly adverting to a practice with which Dr. M.'s name is as indissolubly associated as with that of bleeding in intermittent fever: we allude to the treatment of Dysmenorrhœa by the mechanical dilatation of the os uteri. So long back as 1823, Dr. M. first conceived the idea that this most distressing and untractable disease might, in certain cases, depend on a disproportionate smallness of the os uteri; and a few years afterwards he put his opinion to the test of experience by dilating the orifice by means of bougies. Since that time he has employed this practice in *twenty-seven* cases, mostly after the failure of other means, and he has succeeded in *twenty-four* of these in effecting a complete cure. None of the women operated on had suffered from the disease for a shorter period than two years, some for three or four, and others for ten. Of the patients successfully treated, two-thirds were married, and of these about two-thirds (eleven) have since had children, although some of them had been married for several years (one woman as many as seven,) without ever becoming pregnant. These facts speak sufficiently for themselves, and clearly demonstrate the value of this mode of treatment. We are far from believing that a contracted state of the os uteri is the general, or even the most common cause of dysmenorrhœa; and indeed Dr. Mackintosh himself only considers it as one of the causes; but we think it is satisfactorily proved that, in many cases of dysmenor-

rhœa, such a state of parts does exist, and that the disease to which it gives rise is curable by means calculated to alter its mechanical relations. It is, to be sure, possible to explain the results on another principle, by considering the operation of the bougie to be rather dynamical or sympathetical than purely mechanical; but still, even on this theory, the merits of the practice are equally conspicuous. We are well aware that in this country there are innumerable objections to the general employment of such a mode of treatment, even in cases where it is particularly indicated; and some of these objections, we confess, we trust never to see removed; but every practitioner of experience must have met with cases where it would seem that it might have been had recourse to with little difficulty, and with every prospect of success; and imaginary relations will suggest themselves in which it might be of an infinite value, independently of its power to relieve bodily suffering.

"The instruments employed to produce the dilatation are the common metallic bougies, of different sizes, from that of the ordinary small silver probe to No. 14. The operation is performed (the patient lying in the position in which women are usually delivered in this country,) by introducing the index-finger of the left hand,) till it reaches the os uteri, for the purpose of directing the instrument to the part, which is then to be gently insinuated by a rotatory motion, till it arrives at the fundus of the uterus. Much force ought not to be employed, and little or no pain is produced by the operation. The unpleasant consequences which sometimes take place in treating stricture of the urethra by similar means,—viz. shivering, followed by fever,—occurred in two instances: the fever, however, was slight, and soon terminated by copious perspiration; and in these some days were allowed to elapse before the instrument was again used." (P. 434.)

We conclude by once more earnestly recommending these volumes to the attention of our readers. We advise the author, in his next edition, besides other additions already suggested, to append, in imitation of the American editor, a copious index to the work.

ART. VI.

Mélanges de Chirurgie Pratique: Emploi de l'Eau par la Methode des Affusions; Pansemens rares, &c. D'après la Clinique Chirurgicale de l'Hôtel-Dieu d'Amiens et les Leçons de M. JOSSE, Chirurgien en chef de l'Hôtel-Dieu d'Amiens, &c. Par M. JOSSE, Fils, Chirurgien aide de l'Hôtel Dieu, &c.—Paris, 1835. 8vo. pp. 366.

Observations in Practical Surgery: On the Use of Water by the Method of Affusion; on the infrequent Dressing of Wounds, &c. According to the Practice of M. JOSSE, Chief Surgeon of the Hôtel Dieu of Amiens, &c. By M. JOSSE, Jun., M.D., Assistant Surgeon of the Hospital, &c.

ON examining the contents of the present volume, we were led to the conclusion that, as its scope is mainly practical; as it embraces the result of very considerable experience; as the author's observations are often acute and sagacious; and as the subjects treated are of very great importance,—a review of it might be both acceptable and beneficial.

M. Josse, the author, is a surgeon residing in the large provincial city of Amiens, and attached to its hospital, which is of considerable size and consequence. His father has long been at the head of the surgical de-

partment, and the modes of practice which are here advocated appear to have chiefly originated with him, though the son, with commendable regard, has not only adopted them, but illustrated them with zeal and talent. In treating of this work, we can make no distinction between the two; but it will be understood that the cases were chiefly under the care of the father.

A preliminary dissertation embodies the author's opinions on the nature of inflammation, and in it we see nothing so new or so precise as to entitle it to particular notice; we shall therefore content ourselves with saying, that the leading doctrine he adopts is, that the heat of the inflamed part is more amenable to treatment than any other phenomenon belonging to that process, and therefore "it is against it the efforts of art should be directed," (p. 30;) and on this principle he bases his practice; we will not here stop to enquire how correctly; for, after all, the question is not so much, whether he is right in this opinion, or whether it is good to the extent proposed in the present essay. When practice is founded on theory, it is necessary strictly to examine whether that theory is correct, when, on experience, the case is different; facts are facts, and we have only to endeavour to ascertain whether they are correctly stated, and whether the deductions from them are legitimate.

Cold water is the almost universal means the author proposes for the purpose of combating the symptom above alluded to, and the following is his own account of the mode in which he recommends its application.

"If we had always the choice," he says, "it might be established as a general principle that we ought to employ water by *affusion with a continual stream*; but the nature of the parts or of the disease may prevent this, and oblige us to recur to another method; thus, linen moistened with water, and renewed without ceasing, may to a certain degree prove a substitute for the affusions, but this mode requires much attention: the compresses should be applied lightly, or rather simply laid on, so that the air passing across the folds may carry off the vapour produced by the morbid heat and a fresh stratum of cold water may in turn replace that which has been evaporated, and so absorb a new quantity of caloric as before." (P. 32.)

By these means a great degree of cold may be produced, "but it is necessary that the compresses should be applied lightly, (*negligemment*,) and leave numerous spaces for the free passage of the air, to carry off the vapour it becomes charged with." This mode of applying cold, he says, is well adapted to those cases in which affusions cannot properly be employed; as "when injuries are situated in certain regions of the trunk or face, or when, the symptoms being very feeble, there is reason to apprehend that too brisk an application of cold might do more harm than good." (P. 33.) In the limbs, he says, affusions are always possible, and are indispensable in cases of inflammation already severe or likely to become so. The following is his own method of using them.

"A vessel with a cock near its base,* is filled with water, and placed upon a narrow and high table, near the patient's bed, in such a position that it shall be about a foot and a half above the diseased limb, beneath which a cerecloth is spread, intended to guard the bed, and facilitate the flow of the water, which is received in a bucket placed near for that purpose and into which the extremity of the cerecloth descends."

In order to change the current more readily, it is a good plan to adapt a tube of elastic gum to the cock, or other aperture of the vessel from

* Probably a common tea-urn would answer this purpose well.—Rev.

which the water is poured. Other guards for the bed may be devised either of skin, metal, or other substance; but it is well to arrange them so, that a gutter shall be formed in which the limb may be received; a plan, especially in fractures, useful in keeping the parts steady, and also in carrying off the water more readily.

"Every thing being prepared, the diseased part should be placed in the most convenient position; it should be lightly covered with compresses; an additional piece of linen should surround the cock by one of its extremities, while the other is extended over the highest point of the apparatus. This is destined to prevent the water from falling with all its weight on the diseased part, and rather to disperse it over a larger surface The affusion ought to be made over the whole disease at once, otherwise it (the inflammation) gains in some parts, while it yields in others, where the affusion does not reach." (P. 34.)

The objection to mere moistened compresses is, as he says, that they soon acquire the temperature of the part, and that there is a kind of perpetual oscillation of heat and cold from their renewal, (p. 38, 47); but, while this must be admitted, it is also clear that a remedy may be found in many cases, by renewing them very frequently, by dropping water on them from a sponge (an imperfect affusion), by passing a current of air over them, or by other devices; we, however, readily allow that his mode of applying water by affusion is sufficiently simple, and very effective in severe cases. It is, as we stated in our last number, by no means unknown or unemployed in our hospitals in this country.

"The temperature of the water should be less than that of the parts to which it is applied, and as low as the patient can bear without pain," (p. 40.) It may produce one of these effects: "1st. It may absorb little heat and produce little relief; sometimes even the pain increases under its use. 2dly. It will produce a painful degree of cold, and, if its action is not suspended, the sufferings, though from a different cause, may become as severe as those it was meant to prevent." 3dly. It will give unqualified relief, (p. 41-2.) In the first case, the temperature should be reduced by ice or other means; in the second, it should be raised. He also maintains that the effect produced does not merely depend upon its influence on the temperature, but also on the due quantity of water being brought into contact with the inflamed part, in consequence of a certain relation between the disease and the remedy, which he hints may be owing to some electrical influence.

M. Josse admits the frequent repugnance of patients to the use of cold water; the unpleasant feelings it occasionally produces; the length of time before it exerts a beneficial influence on deep-seated inflammations, although that is not less ultimately: also, the want of faith in patients as to the efficacy of so simple an application; nevertheless, he is not disposed to yield either to the prejudices of the patient (or, it may be, to the advantage of his attendant,) the privilege of disguising it by any medication.

The author hardly enters into the question of this mode of treatment being likely to produce internal inflammations; he disposes of it in the negative, in a brief note, (p. 44.) Nevertheless, this point cannot be altogether overlooked, but undoubtedly demands more attention than it has hitherto received: in scarlatina, for instance, as is well known, it is commonly highly beneficial, and has little tendency to produce metastasis; in rubeola it is quite the reverse; in some cases of gout it has been

employed with impunity; in others, its results have been fatal: in erysipelas accompanied with great heat and tension, it may be used fearlessly; but when the actions are feeble it undoubtedly occasions, and that not unfrequently, very serious increase of the constitutional symptoms, and formidable affections of internal organs: in injuries from accident, it is not often that it produces ill effects, but still cases do occur, not where the inflammation is repelled, (for that supposes spontaneous origin,) but where the patient catches cold, as it is called, and gets an attack of pulmonary or other internal inflammation.

M. Josse proceeds to particularize the forms of inflammation in which he states from experience that cold water may be employed with success; and this he does in chapters as follow: namely, on Erysipelas, Phlegmon, Burns, Contused Wounds, and on Gangrene. He has also a chapter on the opening of Abscesses, (the third,) and another (the sixth) on Dressing Wounds, which as they do not appear to be very advantageously introduced in their present order, we shall consider apart.

Erysipelas. M. Josse gives two cases occurring on the face and head, and two in the extremities, treated with cold affusions; the latter, being of the kind denominated E. Phlegmonodes, deserve to be mentioned from the circumstances under which the cold was applied and continued with success: they are briefly as follows:

“CASE III. Woman, æt. forty-five, admitted five days after the attack. The disease extended over the leg, knee, and outside of the thigh; there was great swelling; the skin tight, shining, bright red at some points, at others violet; many large phlyctenæ, of which several were broken, with black gangrenous spots below: some mortified spots on the outside of the thigh, no fluctuation, but extensive doughiness, (*‘empâtement’*) heat excessive; pains very severe, pulsative; violent fever; all the symptoms high. Cold *affusion* energetically employed. The following day, the adjacent parts much improved, and progress of the disease arrested; the parts where the erysipelas was in an advanced stage better; fever greatly reduced. Third and fourth days further improvement; and, at the end of the twelfth, the patient went out perfectly cured without any abscess.” (P. 59.)

In this case there was no other treatment mentioned.

“CASE IV. Woman, æt. forty-nine, received several severe contusions on the middle and outside of the forearm. Erysipelas ensued. Admitted into the hospital seven days after the accident. The limb then in an advanced stage of erysipelas, with *‘empâtement,’* crepitation, burning heat, severe and high pyrexia: no hope of preventing suppuration and gangrene. Cold applied. Following day, the disease had rather made progress. Twenty leeches applied to the shoulder. Next day, (December 17th,) neck and chest invaded: sphacelus of the inside of the arm. Pulse sharp, concentrated; vomiting, diarrhœa, cold sweats. It was found that the patient had interfered with the efficient application of the cold. The affusion was now energetically applied over the whole surface of the arm. The following day, the erysipelas was stopt, and the swelling of the shoulder had subsided. Abscesses of the forearm were opened by multiplied short incisions; enormous discharge, and of bad quality; sloughs loosen; almost all the skin of the forearm insulated; general symptoms abate. 19th. Further improvement. 21st and 22d. Patient still better. Cold affusion continued with slight pressure. Fall of slough on forearm. Constitutional affection at an end. Water begins to be unpleasant and was stopt. 24th. Renewal of symptoms; cold resumed; impression painful; water applied tepid, which agreed perfectly. In short, the patient got well in six weeks without any deformity of the limb.” (P. 62.)

These cases shew that cold may be very efficacious in the phlegmonoid form of erysipelas even in the *advanced* stages; and from no other cura-

tive measures being adopted, except local means of partial effect in the second, the benefit here is not imputable to any other cause; but, while we freely recognize the great utility of cold applications in this species, especially in the early periods, and even think its advantages may be increased in many instances by sponging the whole body when the weather is hot and the fever high, as well as using it locally; we cannot think it will exclude other means of great efficacy which it is unnecessary to detail here, nor exempt us from the necessity of attending to the constitutional symptoms, which M. Josse intimates will be subdued with the local disease. To other measures it is a very powerful auxiliary; and, to give it full effect, we are quite disposed to agree that M. Josse's plan of employing it is the best. With respect to erysipelas of a different character, we cannot but say that we consider the apprehensions generally entertained of the danger of repulsion not unfounded, although they are altogether disregarded by our author, nor do we hold in such little estimation as he does the application of the argenti nitras, mercurial ointment, or various forms of diluted alcohol.

Phlegmon. Under this head M. Josse includes not only common phlegmon, but cellular and thecal inflammation, &c. This is much to be regretted, as, without more precise distinction, it is hardly possible to know how far we are reasoning with accuracy: we must therefore consider his argument in this chapter as too general for close criticism. His opinions are briefly these: phlegmonous inflammation has a great disposition to suppurate, and hence it is very generally considered that it is useless to endeavour to resolve it: this opinion he combats, and proceeds to examine the various modes by which resolution may be attempted. Bleeding, he says, only calms the general symptoms: leeches aggravate the complaint. Incisions are only proper in extreme cases. Poultices he strongly condemns, with a few exceptions; he states that, far from being emollient, as they are generally considered to be, in point of fact, they augment the actions of the part, the swelling, and the pain; and, even when suppuration occurs, they increase the suppurative action, and thereby do harm. If he makes an exception, it is in favour of cold poultices while they continue cold, and thereby act in the same way as cold water. His opinions on this point are embodied in the following positions, laid down at p. 79 et seq.

“1st. When inflammation occupies the skin only, or the skin participates more or less in the irritation of subjacent parts, poultices will be always injurious.” “2d. When the irritation is situated beneath the skin more or less deeply, and the skin is healthy, poultices will be of great use.” “If you wish to obtain resolution of inflammation,” he says, “abandon poultices in phlegmon, erysipelas, contusions, burns, contused wounds, &c.; employ them in deep abscesses, pleurodyne, arthritis, neuralgia, &c.; always when you wish a derivation.”

There are objections to all other remedies for phlegmon but “cold water alone, which unites every advantage of each of the others without having their inconveniences.”

With such sweeping censure of poultices, and unbounded commendation of cold water, we are not prepared to deal, for the reasons above stated: they may be perfectly well-founded as regards one species of inflammation, as for instance thecal, and mainly erroneous in another, as in that form of limited inflammation, which is perhaps correctly termed a

phlegmon. The valuable and objectionable practice in this part of the work of M. Josse's is so much blended, that it is difficult to say whether we are more disposed to approve or condemn; and, while we can by no means admit that, according to his axiom, poultices are to be abandoned in all cases where *the skin is inflamed*, we agree with him in thinking that cold is greatly preferable in those common (and as far as the limbs are concerned) very fatal cases of inflammation, the thecal and fascial, not only during their early progress, but when matter has formed, and openings have occurred. The cases he has given are well calculated to establish the utility of an energetic use of the affusion in these, but we entirely dissent from his expressed opinion as to the inferior utility of incisions.

Burns. To every degree of injury from heat, from the simplest scald to the most severe burn, without regard to its extent, without exception of age or constitution, from the commencement to the termination, M. Josse would apply one remedy, cold water, (p. 117.) There is no other form of application which he does not condemn, either as being directly injurious, or as an imperfect modification of his favorite remedy. If alcohol or æther serve, it is merely by the cold they produce; the poultices of scraped potatoes have no other effect; and to cotton only he allows some utility in burns which must suppurate. Mr. Kentish's plan he compares to the works of the darker ages, when wounds were cauterized with boiling oil. We cannot be expected to examine minutely the charges thus brought against many well-known forms of treatment, which have, after a careful comparison with that by cold, received the sanction of the best surgeons in this country. Where cold can be efficiently applied for a long time; when the extent of the mischief is not very great; where the constitution of the patient affords no impediment; we believe it to be a very useful and a very grateful application: but even where all these circumstances combine to render it proper, there are many which may make it inconvenient. To be effectual, it must be continued night and day, which involves the necessity of a constant attendant by night, on the one hand, and more or less interruption to the patient's repose, on the other: in severe cases such considerations are not to be regarded; but in many of these, this mode of treatment, on various accounts (alluded to above,) may be inexpedient, and in slight cases the plan will be imperfectly submitted to.

M. Josse condemns Mr. Kentish's plan, it would seem, because he cannot reconcile the principle on which it acts, (p. 116.) We will not discuss this matter; it is often better to deal merely with facts, and with reference to this there is hardly an hospital in Great Britain which will not produce many in favour of this condemned practice. Since the introduction of the treatment by flour and cotton, we have seen more benefit derived from these, particularly the former, than from any other mode of treatment. From circumstances, however, which at present it seems hard to determine, of the many modes proposed, some one may have the advantage in particular cases. Although we by no means concur with the author in this doctrine of the universal superiority of cold water, we are bound to add, that some of his observations are judicious: thus, there appears to be much reason in his objection to the not uncommon opinion that it is right to treat these injuries according to the *degree* of heat which has produced them; that in severe cases every degree exists in some

part of them, (p. 111;) that the best and most expeditious mode of accelerating the separation of the parts which mortify is by preventing the inflammation which disturbs this process, (p. 126;) and that the slough itself, far from being injurious, is a useful protection to the subjacent parts; "as, in fact, a first dressing, which is only removed after ten or fifteen days." (P. 122.)

Lacerated Wounds. Here M. Josse also labours to prove the advantage of cold water as applied to gunshot or lacerated wounds generally. The practice of the best British surgeons, both military and civil, and the works of all the most approved authors, go strongly to support the propriety of this as a general principle, although no doubt there are many exceptions. The chief points on which questions will arise, are, the period to which it should be prolonged; the application proper more immediately to the wounded part; and the abandonment of leeches in favour of cold water as advocated by the author. He states that, when cold water is applied directly after the injury, before reaction has taken place, and where it can be maintained with energy proportionate to the occasion, the phenomena of reaction will be prevented, (p. 142;) that heat, pain, and swelling will be subdued, and consequently the sympathetic fever will not take place; but when the cold water has not been applied before the development of the inflammatory symptoms, they will still be conquered by its efficient use, (p. 144;) and that reorganization takes place most favorably under its employment. After giving seven cases in which the benefits of this mode of practice are strongly exemplified, M. Josse sums up by stating that

"1st. When the action of a traumatic cause is not in itself sufficiently powerful nor assails organs of sufficient importance to cause immediate death, or render the continuance of the vital actions impossible, partial or general death only ensues from the violence of the inflammatory reaction. 2d. If we master the inflammation, bones, laid bare, deprived of their periosteum, do not become necrosed; broken, they unite in a short time; cut, they cicatrize as soon as the other tissues; tendons denuded, exposed to the action of the air and foreign bodies, do not exfoliate, nor form adhesions to their sheaths, but preserve their mobility; contused wounds may unite by immediate adhesion; vast collections of effused fluids may be absorbed, tissues contused, broken down, may reorganize themselves, &c.; and, 3dly, however severe may be the mischief, one may, by means of affusions, sufficiently master the inflammatory reaction, to render recourse to immediate amputation unnecessary." (P. 170.)

These positions, thus strongly laid down, we are by no means disposed to deny altogether; but we think they are stated too strongly, and that they *may*, would in all be a better term than they *do*. We must express our own persuasion to be that, in constitutions sufficiently robust, the unceasing hemorrhage of leeches, is paramount to all other means; that cold may be applied to other parts of the limb or body, so as to accomplish all the objects of refrigeration, as a most important auxiliary; but that, to the actual wound, the best application is often a simple soft bread-and-water poultice, either tepid or cold. With respect to the continuance of the cold, on which the author so strongly insists, we may remark that, although it should be persisted in as long as it evidently eases, or is not painful, yet such changes occur in the state of the part, as render its continued use improper, and either tepid applications, (according to the author,) or hot fomentations, which in many cases are, we believe, of

greater advantage, must be resorted to, and in some instances are preferable from the beginning.

The opinion of one of our highest surgical authorities, as expressed on a recent occasion, and which we were not aware of at the time the preceding observations were written, goes strongly to corroborate the modified views to which our own experience had conducted us, in opposition to the sweeping dogmas of M. Josse. In the second number of the *Guy's Hospital Reports*, Mr. Key, in treating of *severe injuries of the large joints*, makes the following observations on the relative value of cold and hot applications :

"The expectation that inflammation will follow these accidents, leads to a practice that, in many instances, rather tends to impede convalescence than to assist nature's restorative efforts. The ordinary practice is that of applying cold, and keeping the parts in a state of complete rest; two steps, which, though very effective in arresting inflammation, are decidedly injurious, as far as my observation has enabled me to judge, in all recent strains and other accidents to the soft parts about joints. If we judge from a patient's feelings,—and they will often form not a bad criterion,—warmth and moisture are the applications which these accidents call for in the first instance, and which also contribute most to the quick restoration of the joint. I would go the length of saying that warm applications, besides being more grateful to the feelings of the patient, are more effectual in warding off inflammation than evaporating or cold lotions. The former determine blood to the surface of the limb, and keep the skin in a freely perspiring state; thus preventing that passive congestion of the deeper textures of the joint which is the first step towards active inflammation, &c. (*Guy's Reports*, ii. p. 258.)

As connected with this subject the author adverts to the question of amputation, which, as above stated, he is sanguine enough to believe, whether primary or secondary, will by this mode of practice be rendered seldom necessary, (p. 145 to 156.) It cannot be doubted that judicious treatment will save many limbs which otherwise must be sacrificed, but we believe, in civil practice, there is little occasion to influence the minds of surgeons to preserve more than they at present attempt to do; and, in military practice, the circumstances of the moment must always have a very powerful influence on the decision: such, however, is the undoubted efficacy of cold water in arresting the progress of inflammation in these cases, that we cannot avoid expressing a wish (which we believe must be participated by those who have witnessed the spectacle presented by the field of a great battle,) that arrangements could be made in all cases to procure a sufficient supply for such wounded men as, from various causes, cannot for a considerable period be removed. To those whose field of practice is the Navy, the mode of treatment here recommended will be, under all circumstances, of easy application; and we would here express a hope that some of them may soon put its efficacy to the test of experience.

Gangrene. The objects of the author in this chapter appear to be to confirm M. Dupuytren's opinion that the gangrene so admirably described by Mr. Pott, and commonly denominated senile, is of an inflammatory nature, and is best treated by antiphlogistic means and cold water; and that amputation is advantageous in this and certain other conditions of gangrene, in which its propriety has not been commonly admitted.

We regret to see the author commence by giving an arbitrary signification to terms in common use; a custom, it is true, less frequent of

late than the unnecessary introduction of new ones, but both, we conceive, are much to be condemned. It is a practice liable to create confusion and trouble in a science already abounding in difficulties, many beyond our control; and it may not diminish these, perhaps, to teach us that by gangrene is understood complete mortification, (p. 197,) much less that the difference between it and sphacelus should likewise be understood to be, that gangrene is the death of a portion, sphacelus of the "whole thickness" of the part affected, (p. 198.) But to proceed to matter of more real importance.

M. Josse gives two cases, which he considers as unequivocally proving the existence of an inflammatory condition of the arteries in *gangrena senilis*, which disease he supposes to arise solely from an actual inflammation of these vessels commencing in the capillaries and propagated to the trunks, (p. 226.) The appearances on examination were, in the first, as follows: A great part of the foot was deeply disorganized; the tissues confounded, and not recognizable; the muscles of the sole retained their physical characters; the integuments and cellular membrane of the lower part of the leg were infiltrated with yellow fluid; the skin continued to be affected in the same way as far as the point of amputation; it was impossible to judge of the condition of the small arteries, such as the digital, but the larger were difficult to separate, red, and as it were infiltrated with blood externally; internally, extensive spots, in some places of a deeper, in others of a brighter red, covered nearly the whole of the tunics; this colour neither disappeared by washing nor friction. The parietes were very thick, and similar in colour and consistence to fibro-cartilage, the caliber of the anterior tibial was nearly obliterated, of the posterior in a less degree. These appearances diminished in approaching the point of section, but as they were still evident they must have extended into the parts above that point, (p. 211.) Such is a brief abstract of the appearances recorded in the first case, where the history accords with those commonly understood as characteristic of *G. senilis*, and where the limb was amputated with success. The patient, it may be observed, was only fifty.

The second case is an interesting one, inasmuch as the cause appears to have been the rupture of the femoral artery; but the phenomena much more resembled those of *G. senilis*, than those usually consequent on rupture of large arteries, so well described by Guthrie and Larrey. The following are the chief circumstances.

"A robust young man, *æt.* twenty-eight, received a kick from a horse in the right groin, followed by the usual symptoms of a most severe contusion in the part injured; and the great toe was, on the following day, cold, insensible, and discoloured; from which state it did not recover. Eight days afterwards, the patient feeling little inconvenience, walked to the house of one of his relations, and, in so doing, struck lightly against a stone, this was immediately followed by pain so severe that he was obliged to be carried home. The pain continued, accompanied by fever; the toe became black and shrunk; the other toes successively lost their sensibility and heat, changed their colour, and became shrunk; burning pains followed, accompanied by tetanic spasms. The sphacelus had invaded a large part of the foot, and was attended with great constitutional disturbance at the time the patient was seen by M. Josse, fifty days after the accident, and amputation was immediately recommended by him. As the disease was now making rapid progress, it was consented to two days afterwards, and performed at the usual distance below the knee. The principal arteries did not bleed; their parietes were thickened, their canal nearly obliterated, and a few drops of

dark-coloured blood only escaped, (p. 216.) The severed portion presented 'perfectly similar' appearances to those of the first case."

Such is a very brief abstract of these two cases, which are narrated at great length.

Now, there can be little doubt that the arteries were inflamed in these cases: but, with reference to this point, is it clear that in other, it may be in all inflammations, whether tending to gangrene or not, the arteries of the part actually inflamed, may not be themselves more or less inflamed, either partly as cause or effect? In these cases narrated, however, the altered condition of the arteries was very great, and prevailed far above the gangrened part, most probably from extension of the diseased action along their tunics; and, as in every description of gangrene, the vessels are particularly affected, this circumstance may not only in itself prove a cause powerfully disposing to mortification alone, but of that spreading in the way it does. Further facts are wanting to throw light upon this subject: the cases related by M. Dupuytren, by Dr. Graves and Stokes, and these by the present author, all possess a degree of interest connected with it which fully warrants us in dwelling upon them.

With reference to the treatment, we must confess that, in cases occurring in advanced life, where the circulation is universally tardy, the vessels more or less diseased, the powers of maintaining heat feeble; we should be reluctant to apply actual cold or active antiphlogistic means, as M. Dupuytren and our author have recommended; but further experience is required on this point. As to the question of amputation, we have seen enough to convince us of its propriety in many instances; and we are now speaking of that form of the disease described by Mr. Pott.

M. Josse extends his remarks on the subject of amputation to gangrene generally, and we find him laying down the following positions: That inflammation produces further inflammation, (p. 227,) and that gangrene also, when commenced, proves a cause of more inflammation, and, by consequence, of its own further extension, (p. 239;) facts which there can be little reason to doubt, but which, we may remark, he is not the first to maintain. He proceeds to say, that, upon this principle, it may be advanced that amputation is proper when mortification *is spreading*, under the following circumstances:—(When it is *slow*.) 1st. When ligatures or other causes have obstructed the circulation, (a point now well established, if the cause of obstruction is in the limb;) 2d, when it has occurred without any known cause. Here also, he says, we may amputate without fear: "you will doubtless remove the cause together with the evil," (p. 241.) Upon this point, however, we apprehend, others may hesitate a little; but it is right to say that M. Josse founds his arguments in these cases on a pathological principle, which may be just, but which he rather assumes than proves,—namely, that, in *slow* mortification, the collateral circulation (of which the slow progress is an effect, and consequently a proof of its existence,) is perfect; but that, when it is *rapid*, the contrary is the case, (p. 239,) and amputation will not succeed. The observation is worthy of attention, though erroneous as regards sphacelus senilis; but we are bound to add, that, to our belief, the division into slow and rapid, without reference to cause or nature, is too arbitrary, and will not suffice: that which is slow to-day may become alarmingly rapid tomorrow; nor will that of dry and moist be more conclusive; for a gangrene may begin as the former, and in its progress

assume the nature of the latter. To determine the point of amputation, it is necessary to ascertain with more precision the nature and the causes of the particular species of mortification under consideration, and to determine how far the latter is connected with the state of the general system, or otherwise; and, if it is, how far that may be remediable; also bearing in mind that, where the cause is originally local, the general system may *become* completely implicated in the progress, and that, to anticipate that implication, is often one of the most material points in surgery.

M. Josse concludes this chapter with the details of a curious and interesting case, which we regret our limits will not permit us to give more largely. A young man wounded his anterior tibial artery; an aneurism followed. The femoral was tied; and hemorrhage occurred when the ligature came away on the seventeenth day. It was not deemed advisable to tie it again at that point, or above, or even the external iliac, for reasons it would be too long to detail, and not quite conclusive. Under these circumstances pressure was adopted, first direct, then on the artery above, by means of assistants, who relieved each other *for twenty consecutive days and nights*. This proved effective, and the result was, that the femoral healed. The aneurism of the tibial was subsequently cured by laying open the sac, and securing the extremities of that vessel.

We now return to the third chapter, which is *on the Opening of Abscesses*. To this point, however, it is not confined; we find him discussing, in the first place, the proper applications to be used, and, in the second, the propriety of opening them, and the period and manner of doing so.

With reference to the former subject, *the applications to abscesses*, M. Josse is here, as elsewhere, very earnest in his condemnation of poultices, to which he denies the quality of being emollient: on the contrary, he charges them with increasing the pain and irritation, and the quantity of matter, (p. 95,) which, in itself, he says, becomes a new irritant, acting on the inflammation which produced it, (p. 97,) causing a pressure or strangulation, so to say, of the parietes; while he extols the use of cold water, as well after as before matter has been formed, and as well after as before openings have been made.

To persons accustomed to the frequent use of poultices, such practice will appear a little revolting, and there can be no question that our author is far too sweeping in his condemnation of one mode, and in commendation of the other: still we apprehend there is some room for his remarks; and, if he had discriminated with more accuracy the description of cases in which the one or the other plan of practice is preferable, he would have done good service to surgery. In many cases of facial, thecal, or cellular inflammation or erysipelas, where the parts want tone and adhesive action,—in short, in a large proportion of spreading inflammations,—poultices are often very injurious when matter is formed, particularly in the advanced stages, after openings have been made by nature or by art; and lotions, whether actually cold or not, whether the pure element alone or combined with medicines, will often be very preferable. On the other hand, who, having ever felt the effects of a poultice in phlegmon or in boil, would allow the accusation to be just, that it increases pain? It is not possible to see that process of relaxation of

the skin which in such cases occur, and which Mr. Hunter has so well described, and allow that tension and strangulation, as M. Josse has stated, are the effects. Again, although, in spreading inflammations, the matter does become a source of fresh irritation to the surrounding parts in phlegmon, its secretion gives the most palpable relief to the symptoms, until it approaches near the surface. Here, as throughout, our author's remarks would have been just, if the discrimination had been so.

With respect to the second point, *on opening abscesses*, we find M. Josse advocating the following doctrines: 1st. That all acute abscesses should be opened, and with a cutting instrument, (p. 98;) 2d, that small openings are, in all cases, better than large ones, (p. 99 et seq.;) and, 3dly, that abscesses of a scrofulous character and buboes should be opened early, with small incisions. Now, we cannot say that we are persuaded of the justice of the first position to its full extent. We are most friendly to the opening, and the early opening, of spreading abscesses of every description; but the canon should not be absolute in phlegmon and some other limited abscesses, which are often better left to nature. The next position is still more open to objection. He argues that small incisions are preferable, because they give less pain, (but the difference is trifling;) because they leave smaller marks, (but this may be disregarded in every case but one;) because the incisions are new points of irritation, causing an increase of the secretion of pus in the cavity, and retarding the cure, (p. 101.) Here, we apprehend, M. Josse has overlooked the difference between acute and chronic abscesses: in the former, openings, when proper, and judiciously, we may say freely made, remarkably relieve, and the processes which ensue tend to immediate restoration: in the latter, on the contrary, as has been long since stated by Mr. Hunter, an opening, whether natural or artificial, no sooner takes place, than a new mode of inflammation commences on the parietes, often with very fatal effects. It was to obviate this that Mr. Abernethy advocated the plan of puncturing and immediately closing such collections; and, to lessen the degree of mischief, that Sir B. Brodie, we believe, recommends the anticipating a very large formation by an artificial opening, which will also evacuate it more in the natural mode, if effected by caustic, than by the knife. In these cases, it is agreeable to observation that such openings are better than large incisions, although we think it very doubtful whether the admission of air, to which M. Josse has briefly alluded, (p. 104,) is an essential cause of the phenomenon.

Again, M. Josse states, as a ground of objection to large incisions, that the edges gape, and that the cicatrices adhering to the subjacent parts impede the future functions of the member, especially over joints, (p. 104.) This point demands some enquiry. It is undoubtedly true that, in many cases where large incisions are made, such consequences are observed; but are they fairly attributable to the practice? We believe the truth to be this, that, in the cases where these results take place, the condition of the parts is such that, whether incisions are made or not, the skin and cellular membrane slough, ulcerate, or break down in suppuration, and thence the parts become fixed, and never perfectly regain their mobility; and this would happen if nature made the opening instead of art, with this difference, that the destruction would be

vastly more extensive in the latter case, and the functions of the part consequently impaired to a greater degree, if not wholly destroyed. It is an advantage, however, in such cases, in favour of early openings, that they need not always be made very large; and we will concede to M. Josse that that integument will hold better together, if two or three small incisions are made near each other, than one large one, provided they sufficiently discharge the matter, and provided the disease has not gone so far as to terminate in the destructive processes alluded to above.

On the third point, so far as relates to the advantage of early openings for scrofulous abscesses, we apprehend that no one will doubt it when they occur in the face and neck; but as to buboes, which he also thinks should have an early and small opening, to avoid a discreditable mark, it so seldom happens that these are submitted to any but the friendly eye of a surgeon, that we can hardly think it need influence our plan of treatment.

One of the most valuable parts of the present work is the eighth chapter, which relates to the period and manner of *Dressing Wounds*.

It appears that, in 1815, M. Josse, sen. was appointed to the chief care of the wounded soldiers brought to Amiens, after the celebrated but short campaign of that year. Many of these had their wounds still covered with the same dressings which were placed upon them subsequent to the battle; and, in the midst of all the filth and stench, he was surprised to see how free from inflammation and how far advanced towards healing they were. On this observation he founded his future practice, and, being the surgeon of an hospital as large as many of the metropolis, he had afterwards ample opportunities of ascertaining its value; and his son informs us that the result has been decidedly in favour of postponing to a late period the second dressing, and of avoiding the subsequent renewal as much as possible. He contends that the natural processes are unnecessarily interfered with by removing the applications as early as the fourth or fifth day; that, at the period stated, the processes of reparation are in full play; that the suppuration is not as yet completely established, nor does this occur before the eighth, or from that to the fifteenth day, (p. 196;) that, to drag off the dressings at the early period stated, adhering as they do to the surface, is to inflict great injury on the parts, which previously were in no degree inflamed, and that the consequence is the production of very serious inflammation with its concomitants, phlebitis, tetanus, gangrene, &c., and that often sympathetic fever, which before scarcely existed, is excited by it; this fever itself tending still further to prevent the restorative actions, which alone go on well in a state of calm. A wound shielded by its dressings, and covered with its natural defence, pus, is, he says, in the condition of an abscess not yet opened, where all is quiet: if the pus is absorbed, the surface which takes it up renders its qualities innoxious: in such a wound, while a quantity of matter is formed, a certain quantity is also absorbed without danger, as in a common abscess; while it is only when it is taken into the vessels without change, that it induces the serious mischief so often observed, (p. 181.) These are the chief points supported in the present chapter, and, with limitations, we are disposed to acknowledge their justice.

We think M. Josse goes too far in laying down the minimum period so

absolutely. A wound, under some circumstances, will as much require dressing on the third as another may on the twelfth day: thus, in very hot weather,—in unhealthy seasons,—in persons who have suffered amputation on account of diseases attended with large previous suppuration, such as scrofulous joints, compound fractures, &c., the suppurative diathesis being already established, all new wounds will run readily into that process, and require early dressings. In cases where much blood has been retained in the wound and is broken down, or where other foreign matters have lodged in it; where pus is not provided with a proper outlet when formed, or in stumps injudiciously united: in all these cases, and in many others, it is, we conceive, highly injurious to retain matters pent up which are acting as poisons on the part, and exciting most disastrous sympathy of the constitution, leading to that very destructive inflammation which our author so much deprecates; but there should be a *reason* for dressing, and we quite agree with M. Josse that it should be deferred till required; that we should never dress on the fifth or on any other day because the rules of art have so decreed, but, like his father, should feel and examine the stump or wound, as to whether it is tender, painful, will bear pressure, or the reverse; and, if its state is favorable, not change the dressings merely because they are offensive, or because the accustomed period has arrived. Neither, when the dressings have been once changed, is it right to remove them again after twenty-four hours, if it can possibly be avoided; for, as he says, it is not unusual to see the fever reappear, and continue for some hours, after every dressing, (p. 180.) In one respect we think M. Josse has been guilty of a serious omission; namely, in not sufficiently enforcing the propriety of dressing all wounds likely to suppurate, in such a way as to allow every egress for the pus, without disturbing that portion of the apparatus which maintains the parts in a fixed position, (we do not mean the edges in approximation:) it is the breaking down the new adhesions in the deep parts of the wound, loosening the recently agglutinated muscles and other tissues, which induces the necessity of deep suppuration to effect the process of restoration, and proves so exceedingly prejudicial; not the mere contact of air on the surface of such a wound, the apprehension of which has been magnified, in our opinion, to an unnecessary extent; for how could the wounds of all animals, other than man, be healed, if such were the prejudicial effects of air? M. Josse strongly enforces the propriety of applying cold water in all these cases, as might be naturally supposed; and he adduces the example of wounds on the cheeks, &c. to show that the constant application of moisture is not unfavorable to the rapidity with which the processes of restoration take place. We are bound to add, that the results of the mode of treatment adopted by M. Josse have been highly satisfactory; for he states (p. 187,) that, although the Hôtel Dieu at Amiens is very unfavorably situated, they do not now lose one amputation in twenty, and that phlebitis after it is unknown.

Here it may be right to sum up briefly the points which appear most worthy of approbation, or otherwise, in the preceding part of this essay; stating that, in advocating the employment of cold, whether in erysipelas or phlegmon, in mechanical injuries, or those from high temperature, it is quite clear that M. Josse brings forward no new practice, nor indeed does he claim to do so: the novelty consists, 1st, in the universality of

the application; 2dly, the energy with which he employs it; and, 3dly, its duration, which, it will be observed, is commonly through all the stages of the disease. It is unnecessary to recapitulate the objections to be urged on the first head: the principle is evidently pushed too far; and while, on the one hand, it may be readily conceded that, in the early stages of most lacerated wounds, in thecal inflammations, through every stage, perhaps, in the more active forms of erysipelas, and in various cases of injuries from high temperature, the treatment by cold is the preferable one. On the other hand, there are many varieties of erysipelas in which the character of the inflammation is feeble or where the external affection is the least part of the disease, to which cold is very inapplicable; the same may be said of cellular inflammation, in which it has rarely been found to answer; and we may add, as a more general position, that, while it is often a most suitable remedy for spreading inflammations, it rarely is so for those of a limited nature, as, for instance, in boil and the various species of carbuncular abscess, to which ordinary glandular inflammation and simple phlegmon may be added. In inflammations of this description, its effects on the constitution are often prejudicial; and, with reference to the part itself, it rather seems to suspend the actions going on than to cure them, as (although long continued) these return with their former violence when it is left off: in such cases, cold will, if the expression may be used, render an acute inflammation chronic for a time. Of this, as of all the other remedies, internal as well as external, which have been confidently recommended as sure of general success in forms of disease having many varieties, it may be concluded, when the advocate is a man of talent and experience, that there must be considerable truth in the statement, but that it wants the limitations which the varying nature of disease always presupposes. The advantages which we believe are to be gained from the consideration of this part of the author's essay are chiefly to be derived from the second head; and we must again repeat our full conviction, that the important results which are capable of being obtained from the use of cold, when it is the appropriate remedy, are often lost from its inefficient application, and that nothing can be more judicious than the rules which he has laid down upon this point.

The eighth chapter contains the description of an apparatus for fractures of the neck and superior part of the thighbone, adapted also to the treatment of spontaneous luxations of that member. With regard to the former subject, it could hardly be expected that any very novel contrivance should be proposed, after the numerous endeavours which we have in our own time witnessed to remedy this accident. In point of fact, the present apparatus is a combination of many: thus, we have the long splint of Dessault, made very solid, and with certain modifications, to fix the limb; the aperture to provide for the discharge of the fæces, which constitutes so useful a part of Earle's bed, placed in a moveable frame, which more immediately supports the patient's body, by means of a strong web extended across it, and capable of being easily raised on four uprights, and thus not only affording due facility to the operation of elevating the patient, but rendering it practicable to keep the bed beneath constantly clean and duly arranged. On the bed he ordinarily rests, although the web which more immediately receives the body is

interposed, and wholly supports it when it is desirable to raise it. So far there is nothing particularly novel in the plan; but the author further proposes a method of perpetual extension, which he produces in a mode not hitherto resorted to; for, having fixed the foot to the lower transverse limb of the long splint, he then, by means of two moveable side pieces placed beneath and at an angle with the level of the bed frame, calculated to act on the moveable frame above described, and capable of being adjusted to any angle by two sliding wedges, he raises the feet, and gives the surface on which the patient reposes an inclination greater or less, as may be desired, towards the head; by which, of course, the weight of the superior part of the body may be made to operate a continual but gentle extension on the upper portion of the fractured bone, the lower being retained immoveably by its attachment to the lower end of the splint, as above described. An inner splint is also applied along the inside of the limb as far as the foot, to steady it, and a small one in front of the thigh. This we believe to be a tolerably correct though very brief account of the apparatus in question: we say very brief, for the author's description extends over not less than twenty-one pages, and is moreover illustrated by eight plates.

M. Josse informs us that this plan has been employed in numerous cases of fracture, and been found to answer perfectly; he also states that no inconvenience arises from the depending position of the upper part of the patient's body. (P. 279.) We have ourselves seen great advantage derived from the same principle applied in the opposite direction,—namely, by adding weight to the limb through the intervention of a pulley, and fixing the upper part of the body, which is laid on a plane, inclined from the head downwards. Both plans will tend to accomplish the same purpose. Of the superiority of that proposed by the author we cannot, of course, judge, until it has been tried in this country; but we should conceive the inclination of the head downwards would prove unpleasant, if not injurious. His statement of the principal objects which are attained by it, it may be right to give.

“The muscles (he says,) passing over the fracture need not be compressed; the extensive and counter-extensive forces are distributed over the largest possible surface; the extension is absolutely in the direction of the axis of the limb; the extensive force is gradual, and easily regulated; the parts are sufficiently protected from the pressure of the straps and bandages; the rotation of the limb is prevented; the pelvis is comprehended in the apparatus; and, lastly, the apparatus itself is simple, easy to construct and apply, and little expensive.” (P. 279.)

And he adds that, if care is taken that the moveable frame, the web of which more immediately supports the patient's body, should always rest evenly on the mattress, and that be daily adjusted, he may lie for months without galling or inconvenience; and, from this contrivance, may be lifted off the bed, and moved from place to place, or even be carried into the open air, if desirable.

So far with respect to fractures: but the title of the chapter is on the “Cure of Spontaneous Luxations;” and the author, in point of fact, employs the same apparatus for cases of luxated hip from disease, of which however he relates only two, in both of which benefit appears to have been derived from it. One, a little boy, who died of cerebral inflammation before the luxation was quite well, but at a time when he

had quitted his bed; the other, a girl, about sixteen, who recovered perfectly. It appears that, in both, the limbs were much shortened (about four inches,) when the treatment commenced, and contracted: nevertheless, by management, the apparatus was usefully applied. The author also proposes its employment in cases where no luxation has yet taken place, to give the joint that perfect rest which, he says, cannot be otherwise obtained; but, as he makes no allusion to Mr. Earle's bed, we must suppose that he is not fully aware of its advantages in this respect.

At first sight, any measure of extension appears harsh; but, on the one hand, it will be perceived that the degree of force may be applied in the most gradual and gentle manner, and, on the other, it may be stated that in many cases of other diseased joints, particularly of the knee, the suffering produced by the constant contraction of the muscles acting upon them constitutes a great aggravation of the disease which it also probably increases; and thus gently overcoming this contraction, often affords very great relief. This so far tends to confirm the propriety of the author's practice in cases where the bone has not quitted its socket: when it has, the case is very different; it may be that in some its restoration will still be a benefit, but there are others in which it may be doubted whether it would be desirable, if capable of being accomplished. The parts of a joint, admirably suited for each other in health, may become a source of torture when applied to each other roughened by caries, and hence both the head of the bone and the socket may be more advantageously circumstanced, when the former has escaped from the latter, and both are in contact with soft parts only. We have seen many cases which have appeared to amend from the moment the bone has ceased to be bound down in its cavity, whether of hip or shoulder: but, be this as it may, we are willing to believe that, when it becomes a question of obtaining a *new* socket in these cases, that cannot well be situated more advantageously than in the neighbourhood and direction of the original, and that this apparatus may prove advantageous in determining its direction. To these remarks we are bound to add, that the application of this method must, in a considerable degree, obstruct the useful employment of local remedies; and that, in many instances, no management whatever will, we are persuaded, enable the surgeon to adapt it to the limb.

The author introduces in the sequel a disquisition on the advantages of excision of the end of the tibia, in cases of compound luxation of the ankle; and this constitutes the ninth and last chapter. He gives several interesting cases, in which the result of this practice appears to have been decidedly beneficial; but, although the subject is one of confessed importance, yet, as it is a point only to be determined by experience, and the cases M. Josse narrates are long, we feel that our limits will not allow us to give them. He claims the credit of novelty for this mode of treatment, inasmuch as it has been adopted hitherto only in cases where necrosis, &c. has occurred, or from necessity, in cases of luxation where the reduction of the bone was otherwise impracticable. He employs it as a *primitive* operation, to prevent the ill consequences which result from this accident. (P. 303, *et alibi*.)

We must now state in few words our opinion of this work. It embraces the consideration of many most important points in surgery, and these, it must be confessed, still far from being settled. The ques-

tion of cold or warm applications in different inflammations; of the mode, the degree, or the duration of the former, if employed,—has hardly received hitherto the deliberate attention it deserves. The proper application of dressings, although the subject of several interesting memoirs recently published—and we particularly allude to Mr. Earle's on dressing injuries from heat, Mr. Macfadzen's mode of water dressing, Mr. Higginbottom's by caustic, and Mr. Stafford's, (all, as it appears to us, tending to the same point, namely, that of allowing every facility to nature to perform her own work, merely giving her protection,)—may receive further illustration from the present author. His proposal for the treatment of fractures of the thigh, not by a fixed power of extension, but by a force constantly acting, is one deserving of much attention. The last chapter we have alluded to also contains many valuable facts, and the principle it moots is of importance. Take this work altogether, it possesses considerable value, although it rarely happens that any one pushes his opinions to such an extreme length as our author does. It could have been wished that his details had been more condensed; a quality which, in these days of multiplied publications, is of the very first merit. His acquaintance with the literature of other countries we have to mention with just satisfaction; but we cannot at the same time help adding, that to us it appears most extraordinary that our neighbours should so often transform the names of British, and we may add German authors. Barbarous as some of them may perhaps be, they come out of the Gallic press with no improvement and cannot always be known. Klaterbrunner, it is true, cannot well be mistaken; but in With and Gook (p. 303,) it is hard to recognize the respected names of White and Gooch. It might be unreasonable to expect that they would correctly execute the difficult task of pronouncing our somewhat uncouth names, but we might surely expect that print would set the matter right, and give us the pleasure of seeing our compatriots quoted in all their just lineaments and proportions.

ART. VII.

Practical Observations on various Subjects relating to Midwifery. By JAMES HAMILTON, M.D. F.R.S.E., Professor of Medicine and Midwifery, &c. in the University of Edinburgh. Part I.—*Edinburgh*, 1836. 8vo. pp. 317.

It is not necessary for us to make any formal efforts to attract the attention of our readers to a work coming from the pen of so respected and able a practitioner and so well-known a teacher as Dr. Hamilton, of Edinburgh. From him many of the most celebrated accoucheurs of the present day, in Great Britain and Ireland, derived their first obstetrical instruction; and every one who was his pupil must readily admit that no man can be more dexterous in the difficult task of conveying solid and good practical instruction in an amusing and attractive manner. The object of the volume before us is to record these deviations from the established modes of practice, in several ordinary affections of women, which the experience of nearly half a century has led the author to adopt and recommend. By pursuing such a plan, a veteran practitioner like

Dr. Hamilton promises to be much more useful to his juniors, and to the profession at large, than if he were to undertake a general treatise upon the subject to which he has devoted his attention; for then his original views would be lost, or at least obscured in the mass of matter which he must necessarily compile from various writers. The subjects discussed by the author are few in number, and therefore we shall at once enumerate them. The volume comprises chapters on the Prolapsus of the Uterus; Polypous Excrescence of the Uterus; Enlargement of the Ovary; Evidences or Signs of Human Pregnancy; Duration of Human Pregnancy; the Management of the first, second, and third Stages of Labour. In an Appendix, too, is given a report of experiments, with the Stethoscope, on the Action of the Fœtal Heart, by Dr. JOHN MOIR. In giving an abstract of Dr. Hamilton's well-matured opinions upon these different topics, we shall take care that whatever critical comments we may introduce, shall be tempered by that deference which he may fairly claim, while they will be free from that subserviency which he would rather deprecate than approve, and which we are not inclined to show even to the doctrines of a master.

Prolapsus of the Uterus. Dr. Hamilton expresses his astonishment that medical practitioners should have fallen into the most extraordinary errors respecting both the nature and treatment of this ailment, considering the frequency with which it presents itself to their notice. The incipient symptoms of prolapsus uteri are well known; that they vary in different individuals is as well understood. But the irregular progress of the disease in different individuals is not always impressed upon the mind of the practitioner. In robust women of the lower ranks, little inconvenience is often experienced till the uterus is actually protruded through the external parts; and even then, by any mechanical contrivance to prevent the actual protrusion of the organ, they are capable of fulfilling laborious duties. In delicate females of the higher ranks, the uneasy feelings on standing or walking lead them to avoid all exertions. Their health declines for want of air and exercise, and the increasing descent of the uterus produces an unusual discharge from the mucous glands of the vagina. Thus the general weakness is aggravated, and a broken constitution follows. Dr. Hamilton doubts the accuracy of the general opinion, that the sufferings of the patient are proportioned to the degree of the disease. His experience teaches him that peculiarity of constitution has more influence than the degree of displacement, and he corroborates this opinion by the brief mention of different cases.

The diagnosis of the disease is easy, if the proper measures are taken. "There are at least three diseases with which prolapsus uteri may be confounded, and from which, of course, it is necessary to distinguish it, viz. chronic enlargement of the uterus, polypous excrescence, and incipient scirrhus. Nothing but actual examination can enable the practitioner to draw the line of distinction." (P. 6.) The prognosis may be always favorable as far as life is concerned. The probability of a radical cure depends on the age of the patient, her general health, the apparent cause of her disease, and its duration. In elderly relaxed women relief may be afforded, but nothing more should be expected or promised. In young healthy subjects, a complete cure may be expected, unless from any cause some of the parts which naturally support the womb are destroyed.

It was once the universal, and is now the very general opinion,* that prolapsus of the uterus was principally owing to relaxation of the ligaments that support it. Dr. Hamilton believes, with Gardien,† that the ligaments of the uterus do not retain it in its natural situation. It will be found, he argues, that in any case of prolapsus uteri, the vagina or bladder, or rectum, or muscles lining the pelvis, or filling up its outlet, are debilitated or lacerated, and therefore the relaxation of the peritonæum and its productions (the ligaments of the uterus) is the effect of the prolapsus, and not the cause. The refutation of some apparent objections to this doctrine is not omitted. Dr. Hamilton will be gratified to know that he is supported in these views by one of the first authorities in Germany, Oslander.‡

The treatment hitherto pursued in cases of prolapsus uteri has been the following: viz. in incipient cases, the horizontal posture, the application of cold to the loins, external parts, and vagina; the injection of styptic liquors into the vagina; tonic medicines; and, in cases of long standing, in addition to the above means, pessaries. Dr. H. admits that the horizontal posture immediately relieves the uneasy feelings of the patient, but he long ago ascertained that it tends not only to impair the general health, but also to aggravate the disease, by increasing the relaxation of the natural supports of the womb; and "daily experience has established the validity of this opinion." It must be evident that the *constant* observance of the horizontal position (against which, we presume, the author contends,) will be more or less injurious to the general health; but such evil effects would not arise from the patient lying down for some hours a day, while the cure of the prolapsus would be greatly facilitated, as far as we can judge from the great difficulty of affording relief in cases where the situation and occupation of the patient prevent her from remaining in the horizontal position for a great part of her time.

"The application of cold, either in the form of the cold bath, or by lotions of water artificially cooled, have been highly extolled by Sir Chas. M. Clarke. In slight cases the cold plunge bath furnishes an excellent auxiliary means; but the author cannot sanction the introduction of a piece of ice into the vagina, as suggested by Sir Charles. It could answer no good purpose, that is, it could not cure the disease, while the probability is, that it would produce inflammation of the surface of the vagina. As to the injecting of styptic liquors into the vagina, it is a practice to which also the author, from much experience, must object in the most explicit terms." . . . "Against this mode of practice the author has to offer the following, as he considers, most serious objections:—1. On the supposition that styptic injections were safe, and that they could really restore tone to the vagina (which the author concedes for the sake of argument, for the contrary is his sincere belief,) it must be obvious, that if his view of the nature of the disease be correct, no benefit could accrue from the practice. Accordingly, no practitioner trusts to those means in cases of any considerable degree of prolapsus uteri. 2. It is admitted that, as the irritability of the mucous membrane of the vagina varies in different women, as well as in the same woman at different periods of time, the injection of strong astringents may prove injurious. Doubts are, therefore, entertained on the safety of the practice, even by those who recommend it. 3. The author's experience has convinced him, that astringent injections into the vagina

* Obs. on the Dis. of Females, by Sir C. M. Clarke, Part I., p. 68. Burns' Midwifery, 8th Edit. p. 130. Dr. D. Davis's Principles of Obstetric Medicine, p. 548, &c.

† Accouchemens, t. i. p. 177.

‡ Die Ursachen und Hülfsmittel der unregelmässigen und schweren Geburten, von Dr. J. Oslander. Zweite Auflage. Tübingen, 1833. B. 3, s. 130.

are apt to injure the uterus, rather than the canal into which they are thrown. He can solemnly aver, that of the numerous cases of chronic enlargement of the uterus which have fallen under his notice, by far the greater number had been unequivocally occasioned by the use of styptic injections per vaginam. 4. The immediate effect of such injections in cases of prolapsus uteri of any standing, viz., the diminution or suppression of leucorrhœal discharge, has been in many cases followed by distressing headaches, or obstinate inflammation of the eyes, or eruptions on the face." (P. 15.)

We cannot say that we have seen any very decided advantages from the use of styptic injections in cases of prolapsus; for their employment is seldom trusted to alone; neither did we ever see the injurious effects ascribed to them by Dr. H. Internal tonics are very useful auxiliaries.

We are by no means convinced by the arguments so strongly urged by Dr. Hamilton against the employment of pessaries in cases of prolapsus. They appear rather directed against the abuse than the judicious use of these instruments, from which, in many cases, we have found such decided advantage, and without "subjecting the patient to the charge of the medical attendant for life," or even a long period: so that we really cannot consent to give them up ourselves, or to recommend others to do so, even upon the authority of our author. We do not feel ourselves called upon to enter fully into the subject of the employment of pessaries in prolapsus uteri. Most elementary works on the Diseases of Women lay down the mode of applying them, and the cases in which they are proper. In justice to Dr. Hamilton, we must observe that he is again supported by Oslander,* but in our opinion the German as well as the English professor has been much too hasty and too exclusive in his condemnation of an instrument which, when skilfully employed, is certainly not liable to produce the mischievous effects which they attribute to it. As Dr. H. feels convinced that the established practice in cases of prolapsus uteri is most unsuccessful, he has suggested other means of cure. Observation and reflection led him to the discovery of a mode of supporting the uterus which is both effectual and safe, "and the experience of several years has now fully established its superiority to every means hitherto suggested." It consists in the use of the T bandage, with a cushion interposed between the outlet of the pelvis and the cross strap of the bandage. "In every case of prolapsus, whatever may have been its degree, to which he has been called for several years, he has suggested this very simple contrivance." Different modifications of the bandage are described by the author which are required in different cases of the disease. Oslander,† as firm an opponent to common pessaries as Dr. Hamilton, recommends, as "more appropriate, less dangerous, and giving hopes of a perfect cure even in very old cases," the following plan: Two fine linen bags, about two fingers broad, and four or five inches long, are to be filled with very finely powdered oak-bark. Before they are used, they are to be steeped some hours in red wine. One of these bags is to be introduced into the vagina in the morning, and the other in the evening; and, to prevent their falling out, a T bandage is to be applied over the genital organs. Oslander assures us that, by the regular continuance of this plan from two to three weeks, *the patient remaining as much as pos-*

* Loc. cit. p. 134.

† Loc. cit. 135.—Siebold never uses hard pessaries. Journ. für Geburtshülfe, &c. 1822. B. 3, s. 40.

sible in a recumbent position, the relaxed and expanded vagina will be so much constricted, that, even in cases where the whole hand could be before introduced without any difficulty, there will be hardly space for two fingers, and that thus the disposition to prolapsus will be removed.

“Walking exercise,” according to Dr. Hamilton’s experience, “is the most powerful means which can be suggested for strengthening the natural supports of the uterus. Of course where the patient has been much debilitated, or has been long confined to the horizontal posture, this exercise must be cautiously begun; but, whatever be the feelings of the patient, it must be gradually increased till it equal that which an individual usually takes in the ordinary state of health.” (P. 30.)

As far as we know, this mode of managing a patient with prolapsus uteri is quite original. In very many cases the patient neither could nor would submit to it, and we strongly doubt whether it can in any case be proper. It cannot be doubted that the total want of exercise, to which many persons with this disease are subjected, is a great evil, and most prejudicial to the general health, and consequently to a perfect cure; but we cannot, even on Dr. Hamilton’s authority, feel justified in recommending his mode of treatment without some personal experience of its safety. We however recommend the subject to the earnest consideration of our readers, and shall certainly on a fit occasion give it a fair trial. Cold bathing and internal tonics are approved of as auxiliaries.

Polypous Excrescence of the Uterus. Dr. Hamilton confirms the opinion of Dr. Gooch and other experienced writers, that many women die of this disease, in whom the nature of the complaint has not been even suspected; for in many cases the symptoms are, if not obscure, at least easily mistaken for other maladies. The most ordinary symptom of polypus of the uterus is an increased flow at the usual menstrual periods, accompanied sooner or later with a discharge of coagula. Leucorrhœa, pain in the back, and a sense of pressure or bearing down, supervene after some time in most cases.

“In the further progress of the disease, the draining from the vagina increases in quantity, and becomes acrimonious and offensive. When this change happens, the state of the general health is rapidly impaired, œdematous swellings of the lower extremities follow, and if no effectual means be employed, the patient sinks exhausted.” (P. 36.)

Sometimes many months elapse after the frequent uterine hemorrhage had indicated the existence of the disease, before any draining from the vagina, during the intervals between the menstrual periods, takes place.

In proof of this, the author mentions two cases in which the polypus was as large as “a new-born infant’s head.” (P. 38.) It might be supposed that, when the polypus has attained a certain size, it must occasion pressure or bearing down, and yet neither symptom invariably happens. This we know from our own observation in public and private practice.

“The patient from whom the largest polypus in the author’s possession was taken, had, within a few weeks before falling under his care, walked up and down some of the highest mountains of Britain without inconvenience or fatigue.” (P. 39.)

Dr. Gooch agrees with Dr. Baillie, that the “internal structure of polypus in most cases exactly resembles the internal structure of the large white tubercle of the uterus, commonly called the fleshy tubercle. “They are, (he says,) the same disease, differing only in the seat and

mode of their attachment, and consequently in the symptoms which they produce." Such is certainly the structure of the majority of polypi we ourselves have seen, but Dr. Hamilton regards such characters of the excrescence as exceptions to a general rule. "Polypous excrescences when of a large size are commonly of a soft fibrous texture, with numerous loaded veins on their surface." Dr. Hamilton's experience leads him to believe that hemorrhage from the surface of the polypus is rare.

"In no instance to which he has been called has there ever been any bloody discharge from the surface of the polypus, notwithstanding any liberty he might have taken in pressing upon it, or in attempting to twirl it round." (P. 43.)

Dr. Gooch* is opposed to this opinion. Burnst† partly coincides with it. We, with Dr. Hamilton, do not remember to have seen blood discharged from the surface of the polypus, however roughly it was handled. "The locality of these excrescences has perhaps more influence upon the symptoms of the disease than either the size or texture." Polypus can only be distinguished by actual examination; and, even with this assistance, the young practitioner may be mistaken in his diagnosis. In proof of this we give the following case from M. Velpeau, and cannot refrain from remarking that the candour with which it is related is highly creditable to him. A woman, aged forty, presented herself at a Paris Hospital. She said she had prolapsus uteri, for which she had worn a pessary for two years, but which she had neglected for fifteen months, as the instrument was mislaid. The tumour was found, upon examination, to protrude from the vagina about two inches: it was easily returned, was of a conical shape, and had a transverse cleft at its most depending part, so as to present two unequal lips, the anterior one of which was a little longer than the posterior. The neck of the tumour was narrowed a little above the vulva. The mistaken diagnosis of the case was strengthened by the declaration of the patient that she menstruated from this orifice or cleft in the tumour. M. Bourgon desired M. Velpeau to apply a pessary. Soon after the patient died of peritonitis, and, upon dissection, it was ascertained that the imagined prolapsus uteri was a polypus attached to the fundus of the cavity of the uterus. The preparation is in M. Velpeau's collection, and it is very remarkable from the perfect similarity that exists, at the inferior part of the tumour, to the os uteri. Upon the surface of polypous tumours, depressions or furrows occasionally exist, which, although less deceptive than the appearance in M. Velpeau's case, might easily deceive an inexperienced practitioner.‡

Dr. Hamilton enters at some length on the subject of diagnosis, which, we may remark, is still more fully discussed by Gooch§ and Madame Boivin.||

Respecting the prognosis in cases of polypus uteri, the author's experience leads him to differ from Dr. Gooch, who says, "if mistaken and neglected, it occasions the death of the patient; if detected and removed, she not only lives but regains perfect health." To this statement Dr. H. objects, that it is too strongly expressed; for, conceding that neglected

* On some of the most important Diseases of Women, p. 260.

† Midwifery, 8th Edit. p. 115.

‡ Anatomie Chirurgicale, 2d Edit. t. 2, p. 362.

§ Loc. cit. 299.

|| On Diseases of the Uterus. Translated by Heming, p. 201.

cases usually end fatally, yet sometimes, by an effort of nature, the polypus is separated and expelled, either in the act of vomiting, or by strong expulsive uterine pains.

"In the author's collection, there is a very large polypus, which had been thus naturally thrown off in the case of an unmarried lady; and her health, which had been previously much impaired, was completely restored." (P. 59.)

On the other hand, the removal of the tumour, even though safely effected, does not invariably secure the recovery of the patient. In support of this opinion three cases are related. But we must observe, that in all these cases the ligature was employed; in the two first it is stated that the patients died of enteritis; and it is probable that the same result caused the fatal termination of the third. Now, if the polypi had been removed by excision, each of the patients would, in all probability, have been saved. Again, Dr. Gooch thought so little of the difficulty of applying the ligature, that he states "any surgeon with a proper instrument is competent to remove the polypus." Dr. Hamilton, on the contrary, and we are sure correctly, says, that admitting the general success of the operation, when properly performed, it is in many cases one of the most difficult and dangerous operations of surgery. He has not only "operated on several patients who had been dismissed from public hospitals as incurable, but he has seen some of the most eminent practical surgeons of this part of the kingdom foiled in their endeavours to apply the ligature." (P. 64.) We must be permitted to point out two errors contained in the following statement.

"British practitioners have now universally agreed that the safe mode of operating in those cases is by ligature, though several eminent French surgeons have lately preferred the double operation of tying the polypus, and then cutting it off." (P. 65.)

So far from British surgeons having "universally agreed" to the use of the ligature, excision by the knife or curved scissors, the latter being decidedly the safest and most convenient instrument, is now very generally preferred. Again: the French surgeons of the present day follow the example of Dupuytren, who successfully and safely removed upwards of two hundred uterine polypi by excision, *without* any application of the ligature. The "double operation" is very rarely had recourse to by them. The operation of excision,* which was recommended by the ancients, alarmed practitioners in consequence of the fatal hemorrhage which ensued in the case recorded by Zacutus; but this is a solitary case, notwithstanding the numerous instances in which it has of late years been performed. M. Dupuytren was the first to return to the former practice of excision; it is also adopted by Osiander, Siebold, Mayer, and indeed the great majority of modern surgeons. Mr. Arnott recently made the removal of uterine polypi the subject of a clinical lecture at the Middlesex Hospital, which he has since published.† In this lecture, in which he details his own experience, will be found a very clear and practical statement of the *general* superiority and greater safety of excision than of the ligature. And, as we have already hinted, the fatal result of the cases related by Dr. Hamilton himself, at page 59 et seq., goes very far to show that, *generally*, excision is to be preferred to the ligature.

* Boivin and Dugés, loc. cit. p. 211.

† Medical Gazette, June 11, 1836, p. 410.

We believe that if, in these instances, the polypi had been dexterously removed by excision instead of the ligature, no attack of enteritis would have followed.

Enlargement of the Ovary is the next subject considered by the author. The chapter is interesting and full of practical information. In most cases the disease has made great progress before either the patient or the practitioner is aware of its existence. Few local diseases vary so much in their progress in different cases. Dr. Hamilton states, and we have seen several cases which bear him out in the assertion, that not unfrequently the mere enlargement of the ovary neither injures the health of the patient nor appears to shorten her life. On the other hand, in many instances, after a certain progress, painful and alarming symptoms suddenly supervene, and prove rapidly fatal. A very interesting case recently occurred in our own practice, which shows not only the obscure character of the incipient symptoms of even malignant enlargement of the ovaria, but also the suddenness with which the disease sometimes takes an alarming turn, and the rapidity with which it destroys the patient, when no danger had been apprehended. A young lady, about twenty-eight years of age, who had always been delicate in appearance, but who still enjoyed good health, was attacked, without any obvious cause, with pain in the back, some pain in the thigh, and occasional vomiting. These symptoms, the only ones complained of for several weeks, continued in spite of different remedies prescribed by another practitioner. When the patient was placed under our care, her countenance certainly bore the well-known traits of organic mischief, and she looked like a person affected with uterine disease: the complexion was of a sallow, leaden hue, and the features expressive of great depression of strength. Her spirits were, however, very cheerful, and neither her friends nor herself apprehended the existence of any formidable disease. We were nevertheless led, by the circumstances just mentioned, to enquire if she had ever felt pain in the lower part of the abdomen, or if any symptoms had existed of uterine or ovarian disease. Neither the one nor the other had occurred. Upon making an examination, however, we found a very considerable enlargement of the right ovary, which was somewhat painful on pressure; and in various parts of the abdomen hard tumours could be felt, some of which were slightly painful. It is worthy of attention, that the patient was quite unconscious of the existence of the tumours in the abdomen and ovarian region. With this evidence, we gave it as our opinion that the enlargements were of a malignant character, and that sooner or later the case would terminate fatally. In the course of a few days the tumour of the right ovary became very painful, and great pain and distress were complained of in the abdomen generally. The treatment adopted was of little or no avail, and in about three weeks the patient died. Upon dissection, we found both ovaria greatly enlarged, the disease being evidently that commonly termed *Fungus hæmatodes*.

Dr. Hamilton mentions two cases in which a spontaneous disappearance of enlargement of the ovaria took place. Two examples of this kind have also occurred in our own practice, in each of which there was decided enlargement of one ovarium, which gradually disappeared, without having apparently been influenced by medical treatment, or causing much derangement of health.

"Several individuals, within the author's knowledge, have dragged on a miserable existence under this disease for between twenty and thirty years, although the bulk had become so great that the size of the belly equalled that of a pregnant woman at the full time. These discrepancies in the progress and symptoms of the disease are explained only by what is observed after death; for it seldom happens that, during life, there are any marks by which the probable course of the disease can be foretold." (P. 75.)

Several cases are mentioned by the author, which prove the difficulty that not unfrequently exists in distinguishing ovarian disease from other disease, and vice versâ.

The prognosis in cases of diseased ovary is more difficultly formed than in almost any other organic disease. "Indeed, it is impossible, in any given case, to foretel the probable result." This is expressing the opinion perhaps rather too strongly; for we may sometimes determine that the case will rapidly kill the patient, and sometimes that it will not in all probability destroy her for years. After referring to the general opinion that we can hope to do no more than palliate symptoms in cases of ovarian disease, Dr. H. states that "he can prove, by many living witnesses, that cases now and then occur where the disease is curable, not merely in its early stage, but after it has attained such a magnitude as to require the operation of tapping." (P. 97.) About twenty years ago he was induced by particular circumstances to make some experiments, for the purpose of determining whether ovarian enlargements could possibly be removed; and, in doing so, he paid every attention to the general health of the patient.

"Adverting to the effects of percussion and of pressure in chronic rheumatism, and knowing the influence of the continued use of the muriate of lime in indolent glandular swellings, he was led to the trial of those several means, as being at any rate perfectly safe. He advised, therefore, that moderate and equable pressure of the abdomen should be made by means of a suitable bandage; that the enlarged part should be subjected twice a day to gentle percussion, and that a course of small doses of muriate of lime should be continued for at least several months. Where pain or tenderness was experienced on the ovary being pressed upon, he recommended, in addition to the above means, the daily use of the warm bath." (P. 99.)

This plan of treatment, Dr. H. assures us, has been much more successful than he anticipated. In seven cases in which it has been tried, the enlargement completely subsided. In the majority of these cases there could be no mistake, as the size of the ovary was considerable, and the fluctuation distinct. Previous to the diminution of bulk in all the successful cases, the enlargement of the ovary became soft. The practice thus adverted to was mentioned by the author in a work* published many years ago, and since that time his additional experience has confirmed his confidence in it. A somewhat peculiar mode of treating the disease, pursued by Dr. Barlow, of Bath, is noticed in another part of the present Number, p. 165. Dr. Hamilton considers the operation of tapping unsafe till the ovarian sac has acquired a certain degree of distention. He urges various, and to us satisfactory, objections to the operation of extirpating enlargements of the ovaria, and deprecates the practice proposed by Sheldon, of keeping up a constant discharge by

* *Observations on the Use and Abuse of Mercurial Medicines in various Diseases*, p. 200.

means of blistering over the enlargement, and dressing with savine ointment. He is also opposed to another plan which has been adopted,—that of passing a seton through the tumour; and places no confidence in Dr. Jenner's suggestion of keeping up a constant state of nausea for a considerable time.

Evidences or Signs of Human Pregnancy. The author's observations are brief upon this often debated and still debateable subject. In our opinion, he assumes in the following sentences more than the present state of science will justify, or than the experience of most practical men will support. "He undertakes to prove that, both in the early and in the latter months of pregnancy, there are invariable signs marking that condition of the system."—"The author has no hesitation in asserting that there are two circumstances which invariably attend pregnancy during the early months; viz. suppression of the catamenia, and a perceptible change on the surface of the mammæ surrounding the nipple." He admits that all other symptoms are liable to so much variation in different individuals, and even in the same individual in different pregnancies, that they ought to be disregarded. The "*invariable*" suppression of the catamenia during the early months of pregnancy is positively denied by the very great majority of modern writers; and scarcely any experienced practitioner with whom we have conversed upon the subject has not known, as we certainly have ourselves in several well-marked cases, menstruation continue regularly, but generally in diminished quantity, during the period referred to. Without unnecessarily accumulating evidence upon this very important subject, which is readily accessible to every enquirer, we content ourselves with referring to Dewees,* Blundell,† Velpeau,‡ and Montgomery.§ The very general suppression of the menses during pregnancy is universally admitted; but in the present day there are very few who would advocate, with Dr. Hamilton, the "*invariable*" existence of this. So also with respect to the discoloration and altered appearance round the nipple. We admit that the peculiar appearance of the areola pointed out by Dr. Hamilton, especially when combined with suppression of the catamenia, affords strong presumptive evidence of the existence of pregnancy; but we must object to its being laid down as an unerring proof of pregnancy. In this opinion also, which our own experience convinces us is well founded, we are supported by almost all practical writers and observers.

"As to the areola being formed in many of the complaints which resemble pregnancy, as Dr. Denman at one time alleged, it is unnecessary to make any other remark than that it is quite inconsistent with the observation of every modern practitioner." (P. 143.)

Dr. Denman's opinion is not at all inconsistent with our own observation. We have seen, in cases of dysmenorrhœa especially, those changes of colour and appearance around the nipple which might easily have been mistaken for signs of pregnancy; and we know that other practitioners of experience have seen the same changes occur from dysmenorrhœa, and even simple uterine irritation. Our author likewise

* Midwifery, first edition, p. 93. † Principles of Obstetrics, p. 164.

‡ *Traité des Accouchemens*, t. i. p. 182.

§ *Cyclopædia of Pract. Med.*, art. "Signs of Pregnancy," vol. iii. p. 470.

believes, almost alone, that in the latter months "the movements of the infant can *always* be distinguished by an attentive practitioner." We sincerely wish we could assent to his opinion upon these "invariable" signs of pregnancy, either in the early or latter months; but we cannot go further than to admit them as very valuable and trust-worthy guides *in general*. As Dr. H. "has not met with a case during the last thirty years where he could not ascertain pregnancy after the fifth month, when the infant continued to live, by the marks suggested in the preceding observations," he has had no opportunity of verifying the allegations of Kergaradec and others, who have practised auscultation to solve the question of pregnancy.

In reference to the popular and even professional belief, that diseases occurring during pregnancy ought not to be treated in the usual manner, Dr. H. observes, that this opinion has always appeared to him erroneous, and he has seen many deplorable instances of its fatal consequences.

"In acute diseases, the circumstance of the patient being pregnant ought to increase the activity of the practice, and in chronic diseases palliative means cannot be injurious. In chronic affections of the liver, the author would not put the patient upon a course of mercury if pregnant, but he would suggest means, for the relief of the complaint at least, which could be adopted with safety." (P. 164.)

The frequently contested question "of the duration of human pregnancy" occupies twenty pages of the work. Dr. H. admits that pregnancy in the human subject is occasionally protracted beyond the ordinary period, and he mentions cases in point; but he does not think himself entitled to give a decided opinion as to how long the protraction may be extended.

The last three sections of the volume contain Dr. Hamilton's opinions on the management of the first, second, and third stages of labour. The student and young practitioner will here find many hints that are worthy of their attention. It is well known that the mode of extracting the placenta in cases of morbid adhesion, which is usually adopted by British and foreign practitioners, is to insinuate the fingers between the substance of the after-birth and the surface of the uterus. Dr. Hamilton suggests a different, and, if it be effective, a certainly preferable proceeding. "When the symptoms denoting adhesion unequivocally occur, the practitioner must proceed instantly to relieve the patient. For this purpose the navel-string is to be held by the left hand, while the right hand is to be carried up, guided by it to the placenta. Pressure is now to be made upon its substance, bringing its circumference towards its centre, and detaching leisurely and carefully all that can be separated by this manipulation. The separated mass is now to be extracted by pulling by the navel-string with the left hand, while the complete contraction of the uterus is to be secured by suitable pressure with the right hand, which ought not to be withdrawn from the cavity till its parietes are in close contact." (P. 289.) In some cases even a large portion of the placenta may adhere so firmly to the uterus as not to admit of separation without much force, and consequently much danger. Many practitioners are so fearful of allowing even a small portion of the firmly adherent placenta to remain attached to the uterus, that they would, upon the principle of choosing the lesser of two evils, detach it with all the risk that the employment of manual force must incur. Dr. Hamilton "has attended

many cases where two, three, or more days have intervened between the birth of the infant and the separation of the adherent indurated portion of the secundines, and he never witnessed any untoward symptom, such as flooding, or subsequent irritative fever. In one case, a mass weighing eight ounces was retained five days, without occasioning any symptoms indicating danger." (P. 298.) This exactly comports with our own experience, and, if our evidence were necessary in support of Dr. Hamilton's statement, we could relate several cases where we have deemed it more prudent to leave a portion of the placenta attached to the uterus, than to have recourse to what we consider the much more dangerous practice of removing it by manual force. In the course of the last few years many cases have been related, in which it has been said that even large portions of retained placenta were removed by absorption.* In one case which very recently occurred in our own practice, we have every reason to believe that this happened. The placenta was firmly adherent to the uterus, and we could not separate more than two-thirds of it with safety. We watched the case very carefully from day to day; the patient had no after-pains; there was no hemorrhage, nor were there the slightest appearances, upon the napkins, of portions of placenta which were subsequently expelled. In a fortnight the lady was quite well.

The preceding pages will sufficiently evince that the work of Dr. Hamilton contains much valuable matter; and, although the author certainly shows himself, on many occasions, much behind the present state of our knowledge, both in regard to the scientific and practical part of the departments of medicine on which he writes, we can still recommend his book as well deserving the notice of practitioners, both young and old.

ART. VIII.

1. *St. Thomas's Hospital Reports.* No. III. and IV. *April and June, 1836.*
2. *Guy's Hospital Reports.* No. III. *September, 1836.*

THE medical officers of Guy's and St. Thomas's Hospital continue to support with vigour the publication of the Reports from their respective hospitals. The two Numbers of the St. Thomas's Reports now before us are fully equal to their predecessors. The third Number of the Reports from Guy's Hospital shows a great improvement in the manner in which it is illustrated. It is really a very handsome book, and contains no less than twelve plates. Most of these are engraved on zinc by Mr. Canton, draughtsman to the Hospital, and they unite the distinctness of copper-plate engravings with the soft chalkiness of lithographs. The minute anatomy of malignant tubercle of the liver (p. 651,) is an admirable specimen. Some are coloured, and very naturally; the plates of iritis and hypopium, illustrating Mr. Morgan's cases, have all that dull yet definite indistinctness of colouring seen in the original disorganization. It would be difficult to form any just estimate of the comparative merits of

* Velpeau (loc. cit. t. ii. p. 534,) gives the best account of the published evidence upon the subject.

the contents of the two rival publications; in both, as might be expected, with some extremely good papers, there are some indifferent ones. The volume from St. Thomas's is, as its name imports, exclusively a report of cases, with clinical observations; the other takes a wider range, and is not confined to information furnished by the wards of its Hospital only.

The first case of the third Number of the St. Thomas's Hospital Reports is one of *Porrigo Lupinosa of the Head*. It is reported by Mr. CLARK, and makes a text to Dr. Roots for some valuable practical observations on the treatment of that troublesome disease. Dr. Roots justly insists that there is no *one plan*, but that the disease must be treated according to its existing condition. Generally speaking, the tar-ointment is the most useful application; but, if there is much excitement in the skin, it is too stimulating; and Ceratum plumbi acet. or Ung. zinci may be employed. If there is much inflammation, the best applications are rags dipped in water, or cold solutions of the salts of lead, or even leeches. If tar-ointment is not sufficiently stimulating, it may be combined with Ung. hydr.-nitrat. or with the Ung. sulphuris comp. The plan requires frequently to be changed in the course of the disease; and, when a sufficient stimulus has been given, the milder ointments substituted until the excitement has subsided. Generally, when it is thought necessary to produce excitement, this should be done gradually; for example, one part of Ung. picis either with two or three parts of Ung. zinci may be applied, and then the latter may be gradually diminished until the Ung. picis is used pure. Most stimulants have occasionally succeeded and failed, chiefly from inattention to the peculiar circumstances of the case, and want of cleanliness. In conjunction with local applications, the most efficient means is removal of the hair; for the eruption never exists long without the bulbs becoming diseased, and, as long as these continue affected, unless they are removed, a fresh crop of pustules will continue to spring up. The best way is to remove each hair with a pair of tweezers; and it is impossible to do this properly without a lens. When these applications fail, Dr. Roots uses the pyroligneous acid, which he has often found of great advantage, or creosote. No constitutional treatment is required unless the general health is impaired. If there is a cachectic state of the system, good generous diet should be allowed, and perhaps tonic medicines: a plethoric state demands contrary means. Generally speaking, a linen cap is preferable to oiled silk, which keeps the part too excited; where there is a want of activity in the vessels of the part, the application of the oiled-silk cap for two or three days may be useful, but otherwise, says Dr. Roots, "I am quite sure you will not find any permanent benefit from its continued application."

The next case is one of considerable interest, and gives Dr. Roots an opportunity of furnishing some excellent remarks on the subject of Hysteria. The case is headed "*Hysterical Paralysis*." A young unmarried woman, æt. twenty-four, was admitted with paralysis of the right arm and leg, of about a week's standing. Twelve days before, she had suffered great pain in the head, which lasted until the sudden attack of hemiplegia. She was low spirited, and complained of a frequent sensation of choking; the pain in the head continued, and there was pain in the epigastrium. Leeches were applied in large quantities to the præcordia, and five grains of Hydr. cum Cretâ were given twice daily, and

persevered in for a fortnight. The motion returned in her right arm, and the pulse became more rapid, the other symptoms continued the same. At this time Dr. Roots (who had been out of town) saw her, and observing that the pulse was more frequent, that she was pallid, complained of choking, and occasionally fainted, he ordered an ounce and a half of infusion of valerian, one drachm of aromatic spirit of ammonia, and half a drachm of tincture of hyoscyamus, three times a day, with a scruple of carbonate of soda. This was followed with great improvement; but, finding that the menstruation was irregular, and looking at the origin of the disease as congestion about the uterus, Dr. Roots ordered ten ounces of blood to be taken from the sacrum by cupping. Her diet was improved, she was allowed porter, and subsequently two grains of quinine, two grains of sulphate of iron, and half a drachm of tincture of hyoscyamus, three times a day. Her general health improved, and she gradually regained the use of her leg. It was curious to observe how strong the influence of the mind was in aiding her recovery. "For a length of time, she could only move her toes and gradually draw up the leg: she seemed afraid, she had persuaded herself that she was perfectly incapable of doing it; but, on insisting that she should quit her bed, and attempt to stand, telling her she should be supported by people in the ward, she found that she really was capable of doing more than she imagined. Still there was that degree of hesitation, that degree of trepidation, in attempting to use the limb, which made it plain that it was the result, to a considerable extent, of fear." (P. 254.) To work on her mind, Dr. R. requested the clerk to mention in her hearing that a large blister should be applied in two days, were there no amendment. By means of the strong impression thus produced, she day by day improved without the necessity of applying it at all.

With regard to the treatment of hysteria generally, Dr. Roots strongly advises bleeding from the arm if there is much general excitement, and local depletion if there is local excitement. Where it is connected with any thing like congestion about the uterus, cupping the loins or sacral region, or leeching the vulva; when in conjunction with this there is pain in the occiput, he also cups that part, or even bleeds from the arm. Purgatives are always of use; one of the best is from three to five drachms of oil of turpentine with half an ounce of castor oil, which is "a warm stimulating purgative, which empties the bowels thoroughly, and, by its stimulating effect on the muscular coat of the intestines, exercises a degree of tonic power over them, and prevents that enormous distention which so frequently takes place, especially in the colon, in hysteria." Occasionally when the paroxysms are intense, and there is no symptom of general or local excitement, he gives from thirty to fifty drops of laudanum. Dr. Roots adopts the old opinion that one of the beneficial results of nauseous medicines, such as valerian, is the peculiar effects they produce on the mind, similarly to the effect of feathers burned under the nose. Tonics, as iron or quinine, should not be used unless called for by the absolute debility of the constitution.

The next case is one of *compound dislocation of the sternal end of the clavicle inwards*, produced by the sharp end of a pickaxe which was driven in by a fall of earth. When the finger was introduced into the wound, the great pectoral muscle was found to be torn entirely from its

clavicular attachment, and the finger could be passed as far outwards as the coracoid process of the scapula, and inwards it followed the clavicle to the trachea, on the right and forepart of which it rested, sunk behind the upper bone of the sternum, so that it slightly affected respiration and deglutition. The shoulders were brought back with straps attached to a back-board, and the bone readily resumed its place; the elbow was brought forward and bound to the side. The patient, who was under Mr. Tyrrell's care, got well without any untoward symptom.

The next is a case of *Chronic Dysentery*, reported by Mr. W. WEGG, and illustrated by the clinical remarks of Dr. Roots. The patient was a sailor, and he had contracted the complaint in the South Seas. There was purging of mucous stools mixed with blood, pain in the abdomen increased by food and pressure; thirst; tongue coated; red at the tip and edges; pulse 108, weak; emaciation. The case proved very obstinate. In the first twenty-six days leeches were applied, opium and starch injections given; the patient was put on a farinaceous diet, and the mouth was touched with mercury, combined with opium; but, although the secretions were improved, the disease was not cured.

The compound powder of kino with sulphate of copper, and afterwards with sulphate of iron, were fairly tried, but the mineral astringents increased the irritability. Subsequently ten grains of nux vomica were given every six hours, for three days, but it was discontinued from its producing nervous symptoms. This treatment occupied four months. Dr. Roots then resolved to use vegetable astringents only, and prescribed Infus. Gallæ, ʒiiss.; Pulv. kino comp. gr. xxv., sextis horis. The symptoms improved, and in two months he went out, looking fat and healthy; the dose of the medicine having been gradually diminished.

Dr. Roots, in his remarks, states that he has not found mercury, even in conjunction with opium, counter-irritation, and local depletion, cure chronic dysentery; but, on the contrary, the irritability of the intestines has often been increased by it, —an observation which coincides with our own experience. He, of course, never uses astringents when there is much febrile action; but, after lessening inflammation and spasm by the ordinary means, he resorts to them; and when the disease becomes more chronic it is the best practice, even when there may be sufficient tenderness and pain to require leeches from time to time, and counter-irritation. Although it failed in this case, Dr. R. has often found half grain doses of sulphate of copper (combined with opium and other astringents) very useful in relieving the chronic inflammatory action of the mucous membrane. Sulphate of iron also is a useful addition, possessing tonic as well as astringent powers; whereas the copper is purely astringent. In some rare cases, Dr. R. has found nux vomica succeed where the usual astringents have failed. The infusion of galls he occasionally uses when other remedies have been unsuccessful, and with considerable advantage. It is, however, so nauseous, that few patients will submit to it. We wonder Dr. Roots has not given a fuller trial to ipecacuan in this disease. He cannot be unacquainted with the ancient fame of this remedy; and it has been recently most strongly recommended in this disease, by Mr. Twining, in India. In chronic dysentery, Mr. Twining employed the infusion of ipecacuanha.

The next is a very valuable paper on *Diseases of the Joints*. A series

of cases are reported by Mr. White and commented on by Mr. TYRRELL. First of all, four cases are reported of inflammation of the fibrous capsule of the hip-joint, and Mr. Tyrrell enters at length on the rationale of the symptoms, showing how they point out the seat of the disease, its form, and the texture affected. The chief symptoms are pain, flattening of the buttock, and apparent lengthening of the limb. In three of the cases there was pain in the anterior part of the hip-joint and anterior and inner part of the knee.

"The pain at the anterior part of the joint denotes here that the inflammation or morbid affection is confined principally to the corresponding part of the capsule, and this is again indicated from the sympathetic pain affecting the knee: it is upon the anterior and inner part of the knee that the patient feels pain." (P. 285.)

The flattening of the buttock is thus explained:

"As soon as the capsular ligament becomes affected, we have sympathetic pain induced from nervous communication, and also sympathetic affection of the muscles; so that those employed in effecting the movements of the leg or thigh in a degree lose their power, and become incapable of performing their duty to the proper extent. It is solely to the loss of power in the muscles, that this flattening of the glutei (which principally form the mass of muscle in the buttock) is to be attributed." (P. 286.)

The question of the lengthening or apparent lengthening of the limb, a circumstance which has been the subject of so much investigation and difference of opinion among surgeons, is discussed at some length by Mr. Tyrrell. His views being somewhat novel, we give them at length, and recommend the reader to compare them with those maintained by Mr. Wickham, in his very excellent work on *Diseases of the Joints*, p. 146.*

"A person who is the subject of diseased hip is always relieving the affected side, and he, therefore, gets a habit of throwing the pelvis in an oblique direction. Usually, the affected leg is advanced forwards and made to rest lightly on the ground, the weight of the body being supported on the sound limb. There is a difference in the height of the cristæ of the ilia: the sound side is thrown an inch or more above the affected side. This, after a time, remains when the patient is recumbent; so that, when you put the legs together to make an accurate examination, you find the same apparent difference in the limbs as when the patient is erect. But there is another circumstance, and a very important one, which gives rise to an apparent lengthening of the limb, when the patient is recumbent. The capsular ligament which comes from the acetabulum embraces the neck of the thigh bone; but as this joint admits of motion in every direction—abduction, adduction, flexion, extension, rotation, and the intermediate movements, we know that the capsule is longer than is absolutely necessary to retain the articular surface of one bone in contact with another; so, if you strip off the whole of the muscles from the capsular ligament, you may then draw the thigh bone from the acetabulum to the extent of an inch or more. The capsular ligament does not proceed in a straight line from one point to another; and when the limb is in a straight position, the capsule forms a sort of loose bag, not projecting out, but it is longer than the mere exact distance, or a straight line between the points of origin and insertion.

"The head of the bone is kept against the acetabulum in a healthy state, by the influence of the surrounding muscles. All the muscles which pass over the hip-joint have more or less influence of this kind; but more especially those close on the articulation. As we find the glutei lose their power, so the other muscles about the joint also lose their power; and if by force (when the patient is recumbent) you draw together the two legs, the separation of the head of the femur from the acetabulum

* *A Practical Treatise on Diseases of the Joints.* By W. J. Wickham, Surgeon to the County Hospital, Winchester.—London, 1833.

takes place on the injured side, from the muscle not affording resistance, and a difference is made in the length of the two legs in consequence of the separation of the articular surfaces on one side, to the extent of an inch or more." (P. 286.)

The wasting of the limb partly proceeds from the same cause; the muscles lose their tone principally by sympathetic influence, and become flaccid, and therefore the diameter of the affected limb is less. After a time the muscles, from want of use, diminish. Mr. Tyrrell thinks the *kind* of pain experienced in these cases points to the seat of the disease.

"The character of the pain itself, being aggravated at night, is indicative of the disease attacking fibrous tissues. We see this very clearly in the inflammation of the sclerotic coat of the eye." . . . "It is an intermittent or remittent form of pain, of a peculiar kind, being dull or aching, not lancinating nor sharp. The pain is not so severe but that the patient may bear it, but it is sufficient to disturb his rest, and therefore it produces exhaustion." (P. 289.)

In regard to the treatment of diseases of the hip-joint, Mr. Tyrrell, with us, differs from the practice recently recommended by Mr. Coulson. Although in the earlier stage he approves of milder treatment, trusting a good deal to rest; yet when the case is at all severe and well marked, he advocates, from experience, the use of active local measures, particularly recommending them to be applied as soon as possible to the affected part.

"Where the symptoms are slight, and the case is incipient, I have often found that the application of a blister on the surface, combined with attention to the secretions, and rest, produced all the good that I could wish. If the disease has been of long duration, and you think, from examination, that it is of some extent in the fibrous tissue, it is better to resort at once to a more severe form of counter-irritation, such as the application of a moxa, or nitric acid, or potassa fusa, or any other mode of establishing an external wound. The moxa is a good mode of exciting counter-irritation; and I know that, where patients have had it created by various means, by moxæ, by nitric acid, and potassa fusa, they have given a preference to the moxæ over every other plan. It is easy of application; but if patients object to it, you may use nitric acid or potassa fusa, or any of these, for they will have the same beneficial effect. And it is not my practice here, and it is the result of experience, to keep the moxa open by the use of an extraneous matter, so as to form what is usually denominated an *issue*; nor is it my practice to keep open a blister." (P. 291.)

We are sorry that we cannot enter upon the subject of diseases of the articulating extremities of bones, and of the ligaments, particularly the lateral ligaments of the knee-joint. Both these subjects are illustrated by cases which are most ably commented on by Mr. Tyrrell.

Dr. Williams advocates the tonic treatment of erysipelas. Three cases treated by him with wine are reported by Mr. Bullock; two of erysipelas of the head and face, and one of the leg and thigh. The following is Dr. Williams's mode of treatment:—

"The patient is put on a milk diet; the bowels gently opened, and from four to six ounces of port wine, together with sago, allowed daily. This mode of treatment it is seldom necessary to vary throughout the whole course of the disease, and the delirium, if present, is generally tranquillized, and, if absent, prevented. The tongue rarely becomes brown, or only continues so for a few hours, and the local disease seldom passes into suppuration or gangrene. In a word, all the symptoms are mitigated, and the course of the disease shortened. I have pursued this treatment for several years, and I hardly remember a case in which it has not been successful." (P. 336.)

Dr. Williams takes some pains to show that this treatment with wine is justified by theory as well as by practice; but we do not think he has succeeded. He begins by stating that inflammations which depend on morbid poisons require a treatment different from those arising from mechanical or chemical causes; in the former cases, the constitution has received a shock on depression which, as a general principle, is aggravated by bleeding, so that the system is more exposed to the influence of the poison. He then brings forward the strong evidence of Dr. Wells, Pitcairn, and others, to show that erysipelas is a contagious disease, depending on the agency of a morbid poison. If this is admitted, says Dr. Williams, it follows that bleeding, as a rule, is inadmissible. The way in which this axiom is proved, is one of the most inconclusive specimens of medical reasoning we ever recollect to have met with; and, in justice to Dr. W., we give it in his own words.

“An experiment suggested by Magendie was repeated here a few months ago, in which two rabbits, the one having been bled to as large an extent as his small blood-vessels would admit, and the other left untouched, were poisoned by strychnia. The one that had been bled died in twenty minutes, while the other survived for forty-five minutes. This experiment has been repeated by so many different physiologists, and so uniformly with a similar result, that it seems to be a well-established law that bleeding, in all cases of poisoning, the more certainly lays the system under the action of the poison, and aggravates all its consequences. All analogy, therefore, would lead us to conclude that, in the treatment of erysipelas, bleeding, if in any case admissible, must be the exception and not the rule.” (P. 328.)

The practical conclusions which this physiological experiment appear to us to justify are, that if a patient in a healthy state was largely bled, and consequently much debilitated, he would be more likely to become attacked by erysipelas if exposed to its contagion. But it no more proves that, when inflammation already exists in the debilitated body, the antiphlogistic treatment is not required, than it proves the impropriety of treating with antiphlogistics the inflammation of the stomach which frequently follows poisoning by arsenic or other irritants. Analogy with other diseases, instead of supporting Dr. Williams, refutes him. He places typhus fever in the same category with erysipelas; but, if inflammation of the lungs, for instance, occurs in the course of typhus fever, a modified antiphlogistic practice is the only one which gives the patient any chance of recovery. This indiscriminate recommendation of one kind of treatment in every case for a disease whose character varies so much under different circumstances, is injudicious. If Dr. Williams's pupils leave him with the impression, that the simple treatment of from four to six ounces of port wine daily, given to that class of patients who are suffering from erysipelas in the wards of a London hospital, (and the old wards of St. Thomas's, according to Dr. W., are crowded and close,) is to be invariably successful in their country practice, they will have imbibed both incorrect and injurious notions. The want of unanimity among medical men as to the best treatment of erysipelas, whilst it is an argument that the disease is not thoroughly understood, may also be accounted for by the changeable and varying character of the disease; and whosoever prescribes for the mere name of this complaint, will surely go astray.

The concluding paper is by Mr. TRAVERS on the subject of *Tumours*, and is written with his usual ability. With the following remarks on

errors in diagnosis we entirely coincide; and we have no hesitation in saying that a logical and faithful book on this subject would be of more real value to the practitioner in surgery than the hundreds of volumes which every year presents to us, the offspring of a blind empiricism, and as short-lived as the reputation of the never-failing remedies which they so boldly and so lavishly promulgate.

“There are numberless examples of faulty diagnosis in the practice of the most reputed surgeons, and this has been as often proved by the decision of the patient, as by that of a consultation. Influenced by hope or fear, the former has clung to the chance of life held out by an unadvised operation, from which no relief was expected, or resisted its performance, although urged on all hands to embrace it, as the last resource in his extremity, and has survived and recovered. So a charlatan has not seldom carried off the credit of a cure, speculating boldly on the doubts of the honest practitioner, and the credulous confidence of the sinking patient. A register of ‘errors of diagnosis,’ faithfully recorded, would be a source of curious, and not unprofitable, information. But the discriminative faculty being the touchstone of scientific and practical skill, upon which every individual, aware of its value by implication and in effect, especially plumes himself, the pride natural to man interposes an obstacle, which only a single and intense preference of truth to all other considerations can effectually overcome.” (P. 344.)

The first article in the fourth Number of St. Thomas’s Reports is a useful clinical lecture, by Dr. ROOTS, on *Phlebitis*. This is followed by a case of *Stone in the Bladder*, with remarks, by MR. TYRRELL, who details minutely every step of the operation. This is indeed the only plan by which the hospital student can gain much instruction, as the most important part of lithotomy is performed out of sight. He makes use of the beaked knife, and tells us that he chose this instrument after performing the operation on the dead body repeatedly with all the other instruments, and afterwards dissecting the parts. He objects to the gorget, because it requires great force, and because the incision is insufficient for a large stone; he found that with the common scalpel (employed by Mr. Key,) he could make an incision rapidly and sufficiently extensive, but that he wounded the fundus of the bladder, when that organ was contracted, which cannot be done with the beaked knife. The success which he has had is the chief recommendation; for, of forty-one cases of lithotomy which he has performed in public and in private since he has been in the profession, only one has terminated fatally; and this was the case of a little boy, about three years of age, from whom he removed a small stone without difficulty, but who died from erysipelas, at the time prevalent in the ward. The patient, whose case is the foundation for Mr. Tyrrell’s remarks, also had erysipelas and peritonitis, from both of which he escaped. The treatment of these consecutive diseases is ably discussed. The majority of cases of erysipelas in St. Thomas’s Hospital are of patients who have suffered from injury, and who require the tonic treatment. Ammonia is the remedy on which Mr. Tyrrell relies, but he does not partake of the exclusive views of his colleague to which we have alluded; for, if the pulse is full, bounding, hard, and incompressible, with a foul tongue, he bleeds, purges freely, and keeps the patient on an abstemious diet. In traumatic peritonitis, frequently an effect of lithotomy or the operation for hernia, he places his chief reliance on calomel and opium. From the great influence of mercury in checking inflammatory affections of the eye, which quickly go on to a destructive

termination in consequence of adhesive deposit, he, in common with other practitioners, was naturally led to carry out the principle to other textures liable to the same consequences, as the serous membranes. In weak and feeble habits, Mr. Tyrrell resorts to this alone without bleeding, and he has saved many whose powers would have been prostrated by the abstraction of blood. He gives two or three grains of calomel and one-third of a grain of opium every three or four hours, until the mouth is affected. The whole of this lecture will amply repay an attentive perusal.

Dr. Roots makes some remarks on *Pericarditis*, but they throw no additional light on that obscure disease. He omits to mention as a symptom the altered sound on percussion, one of the most valuable. He recommends bleeding and mercury; and has had of late years greater success than formerly, by keeping his patients for a greater length of time under the influence of mercury, and employing local bleeding if there was any increased action of the heart or bellows-sound, when the active symptoms were subdued: for he found that his patients were very subject, on exposure or slight irregularity, to relapses, which he attributed to some degree of inflammatory action going on insidiously in the lining membrane of the heart.

Chronic Laryngitis is the next subject which Dr. Roots notices, and his observations on the treatment of the disease are, as usual, highly judicious. Where there is much irritability of the mucous membrane of the larynx, he avoids ipecacuanha; for, from the excessive excitement which it sometimes produces when an atmosphere impregnated with it is accidentally inhaled in perfect health, he considers it a stimulant, and rather applicable to chronic coughs attended with great debility and great relaxation of the bronchial membrane. He gives a case in which the inhalation of ipecacuanha produced irritation of the bronchial membrane, requiring active bleeding; and our own experience affords more than one instance of the intense irritation produced by the accidental inhalation of this drug.

Three cases of *Medullary Sarcoma* are next given, followed by some remarks, by Mr. TRAVERS, on the analogies between scrofulous and medullary depositions; a subject which he has ably discussed in the *Medico-Chirurgical Transactions*.

The last article is one by Dr. Roots, on *Enuresis*. A girl, æt. 16, had no pain, or uneasiness, or urgent necessity to pass her water, but it came away involuntarily at night, and whenever she made the least exertion: she only retained it when sitting perfectly still. Dr. Roots considered it to be owing to a torpid state of the sphincter of the bladder: he applied a blister to the sacrum, and ordered fifteen minims of tincture of cantharides every six hours. She was relieved in a few days, and discharged in three weeks. The case was of five years' standing.

This Number completes the first volume of these Reports, and is furnished with a table of hospital formulæ which have been referred to. We trust that all the medical officers will continue to make it the vehicle for authentic reports of their clinical lectures; by so doing, they will enable their former pupils to benefit by their increased experience.

Mr. KEY commences the third Number of the Guy's Hospital Reports

with “*some Observations on the Nature and Treatment of Ganglion, Bunion, &c.*” He has found, on dissection, that ganglia, such as are formed about the carpus on the flexor and extensor tendons, consist of a double bag, the outer one tendinous and firm, the inner, like a synovial membrane, thin and secreting. Their contents are not generally like synovia, but like the outer layers of the crystalline lens. Mr. Key prefers puncturing them with the point of a lancet, (or cataract needle, when the tumour is small,) to the common plan of dispersing them with a smart blow. It is more sure, less painful, and (in his experience) the cyst is little disposed to inflame; the closure of the opening by sticking-plaster preventing it. Puncture is the only remedy for the small tumours at the base of the palmar side of the fingers. Blisters are slow and often fail, and blows cannot be accurately aimed. Pressure should be kept up for some time afterwards. The ganglion patellæ, or housemaid’s knee, Mr. Key treats in the same way; and, if this is not permanently beneficial, he finds the seton, of a few threads, the most ready, mild, and effective remedy; less annoying even than a blister. The seton is more especially adapted to those ganglions which have become indurated and almost solid from successive depositions of adhesive matter on the cyst, from continued inflammation, which sometimes contain loose bodies like melon-seeds.

“Fortunately, the seton is equally successful in promoting suppuration of the cyst as it is in the smaller and soft ganglia. But the most gratifying result is the entire disappearance of the hardened coats of the cyst by absorption. The indurated parietes appear to be produced, and to be kept up, by the irritation of the bag; which being filled up by the inflammation and suppuration established by the seton, ceases to act as a cause of irritation, and the absorbents set to work for the removal of the walls of the tumour.” (P. 420.)

Ganglia of the foot, of which the bunion is the most frequently met with, generally depend on undue pressure on some parts of the tarsus; and Mr. Key prefaces his remarks on bunions by some useful observations on the effects of pressure on the feet. The drawing, No. 3, exhibits one species of deformity, which was witnessed in a young gentleman who had been in the habit of wearing boots so short as to compress the foot longitudinally.

“The foot had been thus made to assume a curved direction: the arch of the tarsus had been considerably increased, producing a large projection on its dorsum, and a corresponding hollow in the sole, rendering the foot altogether shorter than nature had intended it to be. The altered form, however, was the least part of the inconvenience; for the act of progressing had become uneasy and cramped. By the unnatural strain created upon the top of the arch at the junction of the os naviculare and os cuneiforme internum, the ligaments had been inflamed, and had become thickened; not, as in the case of the patella, forming a bursal cavity, but giving rise to a painful and indurated swelling, which gave pain under the pressure of the boot, and rendered the foot stiff and uneasy in the act of progression.” (P. 423.)

A more aggravated instance of the same kind of deformity was produced in a country boy, who was compelled to wear shoes cased with iron round the edge of the sole. The shoes did not wear out, but the feet continued to grow. The tarsus was thus more arched than usual; and the phalanges formed angles with the metatarsal bones, being thrown upwards so as to make the balls of the toes more than usually prominent. The great toe was very much distorted upward; its ball was thus exposed

to great friction, and in consequence an intractable ulcer formed; for which he was admitted into the hospital.

Mr. Key believes that bunion is the effect not so much of pressure from the shoe, as of excessive weight received on a weak tarsus and metatarsus, occurring in young persons who take exercise on foot disproportioned to their strength. The tarsus in these cases first becomes flattened, in consequence of the ligaments, and probably the bones also, yielding to the superincumbent weight.

"If the pressure be continued, the under part of the arch at length nearly comes in contact with the ground, and the patient becomes flat-footed. On the outer part of the tarsus, a corresponding change is perceptible: its upper surface becomes depressed and hollow, and thus a general appearance of deformity and awkwardness of gait are the result. I have seen the young among the female part of many families gradually acquiring this tarsal deformity, from the excess of exercise which they were enjoined by their parents to take; and, in truth, while the error of our forefathers led them to confine girls within too strict limits, and to allow them too little use of their limbs, that of the present day runs into the opposite extreme; and many a young person has the proportions of her feet spoiled, and the foundation of bunion laid, by being kept on her feet for hours, without rest or intermission. In some, the deformity is confined to a slight projection of the head of the astragalus, which has weighed down the inner strong plantar ligament. This gives an uncouthness to the walk of the girl, and renders the foot unsightly, but produces no other effect. The change of shape is not long confined to the tarsus; the joints of the toes suffer next, especially that of the great toe. The ligaments of this joint being strained in common with those of the tarsus, at length yield, and the toe is gradually forced outwards by the oblique bearing of the foot on its inner plantar surface. It is rarely that we find persons whose tarsal arch is flattened with a great toe in a line with the foot: it is usually inclined outwards, so as to form an angle with the metatarsal bone. The inner part of the joint thus forms an angular projection; slight at first, but becoming more and more prominent as the pressure increases, and the joint continues to yield. . . . In persons among the working classes, the distortion is sometimes so great that the great toes form nearly a right angle with the metatarsus." (P. 425.)

This kind of deformity gives rise to bunion, and it cannot be counteracted too early. The best contrivance Mr. Key has adopted is the following:

"The offending toe is placed in a separate compartment of the stocking, like the finger of a glove: this again is inclosed in a separate part of the shoe, which is contrived by fixing a piece of firm cow-leather in the sole of the shoe, so as to form a separate apartment for the toe. By these means it is kept in a straight line with the foot, or parallel to its fellows; and, the pressure against the inner side of the joint being removed, the joint acquires a sufficient degree of strength to enable it, in a few months, to dispense with the artificial support." (P. 427.)

Patients who have suffered previously extreme pain have walked well with such a shoe. Where matter forms, the abscess should not be opened with a knife. Mr. Key has known gangrene of the foot and death ensue from opening an inflamed and suppurating bunion; and in three cases exfoliation of the bones, with a most tedious and painful suppuration of the surrounding structures, took place.

It is pleasing to see hospital surgeons thus giving the result of their experience in the less showy branches of surgery, (descending even to corns;) for the young surgeon is often more at a loss in such little matters than he would be in undertaking those rarer cases of disease, to which, from their scarcity and magnitude, he has paid too exclusive attention.

The deformities and little complaints of the feet are of great importance, from the multitude of the sufferers. In all, or almost all adults, the beauty which depends on perfect form is impaired. The foot of an infant yet unfettered looks almost as if it belonged to a different species to that of a full-grown person; but the loss of beauty would be a matter of less moment, did not the deformity lead to much inconvenience and pain. All classes of shoe-wearing people are subject to these infirmities: the richer people are cramped for the sake of appearance, the poorer from ill-made heavy coverings. On the contrary, the Irish poor, whose poverty relieves them from such incumbrances, have almost universally well-formed feet, and their perfect adaptation to every end is as striking as the more frequently quoted instance of the fitness of the camel's hoof for his desert journeys. Among recruits, the Irishman's foot is remarkable for its superiority of form. Mr. Key has very ably pointed out the way in which bunions are produced, not so much by pressure as by over-exertion, and there can be no doubt that this deformity may be caused by undue exercise in weakly girls, who are suddenly put upon a hardening system disproportionate to their strength and former habits; but we think that he has over-rated this cause. Our own experience has not made us fear that any great number of young people are in the present day likely to be impaired in their proportions by too much exercise enforced as a task. Perhaps sufficient attention is not paid at an early age to the manner of walking; for a careless slovenly way of using the feet is particularly injurious to their form. The beauty of the feet of the ladies of Madrid is proverbial: they make walking their study, and impart to it an unrivalled grace. Even the lower orders of the Parisian females pay much more attention to the decoration of their feet than is to be seen in a similar rank of life in this country: they are consequently more careful in their walk, and the form of their feet is much superior to that of the lower orders here. We were much struck with this fact in the Paris dissection-rooms.

The next paper is by Mr. T. W. KING, "*on the Thyroid Gland, with Observations on the same Subject, by Sir ASTLEY COOPER.*"

It appears, from notes taken by a pupil of Sir A. Cooper's lectures in 1798, and from notes which he made of experiments in 1826 and 27, that he then described the structure of the thyroid gland as laminated, and consisting of cells (not of granules) containing a fluid. He remarked that he had found absorbents as large as a crow-quill going to the thoracic duct, and he thought it probable, as the gland has no duct, that the absorbents perform that office, and convey the fluid into the thoracic duct. Mr. T. W. King has very recently dissected the thyroid gland, and, without being aware of the previous discoveries of Sir Astley, has confirmed his opinions, distinctly proving the laminated arrangement of the lobules, the cellular structure of the gland, the existence of a peculiar fluid, and the transmission of this secretion through the absorbents to the great veins of the neck. The fluid appears like weak gum, and coagulates without opacity in alcohol and by heat. Its chemical composition has not been satisfactorily ascertained, but the effects of various reagents upon it are minutely detailed. Sir A. Cooper, with his usual candour and kindness, gives Mr. King due credit for accurate and minute observation, and signifies his intention (as the subject is still open to

much investigation,) to pursue the enquiry in conjunction with him. In a literary point of view, Mr. King's paper is so defective, its arrangement so faulty, and the style so obscure and inflated, that the co-operation of a more practised writer and physiologist will add greatly to the usefulness of any further investigations. Some beautiful engravings on zinc by Mr. Canton display the laminated form, cellular structure, &c. of the gland.

SIR ASTLEY COOPER next relates some *Experiments on tying the Carotid and Vertebral Arteries, and the Pneumo-gastric, Phrenic, and Sympathetic Nerves*. It is important for the practical surgeon to ascertain the effects produced by the obliteration of large arteries on the functions of the parts which they supply, as well as the mode by which nature remedies the defect; and in no department has modern surgery more obviously advanced than in this, the boldest operations having been planned, and successfully performed, under the guidance of principles founded on well-ascertained pathological facts and direct experiments. It is unnecessary to mention that Sir Astley Cooper has contributed largely, both practically and experimentally, to the more accurate information we possess on this subject, and he is still found anxious to throw more light on those points which are yet obscure. Our limits compel us to omit the details of the experiments, and to confine ourselves to the inferences.

It is well known that one carotid has been frequently tied in man, and even both, at distinct periods, without affecting the functions of the brain. Dr. Baillie found the carotids obliterated by disease. Dogs and rabbits are but slightly disturbed by the ligature of both the carotids, and speedily recover perfectly. But it is not so with the vertebral arteries, which seem to be more directly connected with the supply of blood to the brain. The effect of tying these arteries in rabbits is to render their breathing immediately laborious. The animal becomes dull, indisposed to exertion or to take food, and never survives more than a fortnight. On account of their importance, their course is securely defended by bone, otherwise pressure might cause sudden death; they are tortuous, to prevent too sudden a rush of blood to the head; and, as they pass through foramina of bone, any great increase in size is prevented. Compression of the carotid and vertebral arteries of the rabbit at the same time, by applying the thumbs to both sides of the neck, the trachea remaining free, produces cessation of respiration. This fact is more strikingly seen by applying ligatures round the four vessels, and tying them simultaneously, when stoppage of respiration and death immediately occur. If this is done in the dog, it loses its volition and sensation, and appears as if intoxicated; but the anastomosing vessels gradually restore the circulation, by means of the other branches of the subclavian artery at the back and sides of the neck. As, in these experiments, the pressure on the nerves might influence the result, Sir Astley wished to know the effect of ligatures upon them only. He first tied the pneumo-gastric nerves: the animal lived *twelve* hours; its lungs were loaded with blood, and venous blood was found in the carotids, and circulated in the arteries some time before death, the blood gradually becoming less arterial; yet the heart continued to beat. There was a remarkable diminution of animal heat. Was this owing to a cessation of the chemical process by

which arterial is changed to venous blood? or to a want of supply of arterial blood to the nerves? or to both causes? When the animal had eaten after the operation, the œsophagus contained food, owing to its being paralyzed; the stomach was full, from the arrest of the digestive function. "This nerve, then, is most important: 1st, in assisting in the support of the function of the lungs, by contributing to the changing of the venous into arterial blood; 2dly, in being necessary to the act of swallowing; 3dly, in being very essential to the digestive process." On tying the phrenics, the most determined asthma was produced; breathing proceeded by the intercostal muscles; the chest was elevated to the utmost by them, and in expiration it was as remarkably drawn in. The animals did not live an hour, but did not die suddenly, as when the carotids and vertebrales were tied. The blood in the carotids became venous, but the lungs were not congested. Little effect was produced by tying the grand sympathetic: one rabbit was kept seven days, and then killed, and one nerve had ulcerated through. The other animal, on which the operation was performed above a month previously, was still living at the date of the paper. Lastly, Sir A. Cooper tied the phrenic, pneumo-gastric, and sympathetic in each side; and the animal lived about a quarter of an hour, and died of dyspnœa. "The sudden death, then, that takes place from pressure at the sides of the neck must not be attributed to an injury to the nerves, but it is owing to the impediment to the due supply of blood to the grand centre of nervous influence."

Dr. ADDISON'S "*Observations on fatty Degeneration of the Liver*" are of considerable interest, as they are the first attempt which has been made towards ascertaining this disease during life. Fatty degeneration of the liver has, on this very account, attracted but little attention in this country. M. Louis first pointed out its connexion with tubercular disease of the lungs; for, in 120 cases of phthisis, he met with forty-four instances of this complication. In every case of fatty liver he has seen, there was more or less tubercular disease of the lungs. Dr. Addison's own experience is against this connexion being uniformly the case, at least in this country: within the last two months he has met with three instances of fatty liver without any vestige of tubercle either in the lungs or in other parts of the body; and in two of them no suspicion had been entertained of disease either in the lungs or liver, both individuals having remained plump and fat to the time of their death: one died of organic disease of the brain, and the other of pericarditis succeeding an attempt at suicide by cutting the throat.

The appearances of the fatty liver are thus accurately described, and a coloured engraving on zinc increases the clearness of the description.

"It is observed to be of a cream or pale-yellow colour, figured irregularly with brownish or deep-orange spots. It is usually, though not always, more or less enlarged, and sometimes very considerably so. When cut into, its interior is found to present an appearance somewhat corresponding to that of the exterior: excepting that the brown and pale-yellow tissues are much more uniformly distributed throughout the entire substance of the organ than they are upon its surface. It is sometimes softer, and more readily crushed between the fingers than is the healthy liver: sometimes, however, it is firmer than natural, and occasionally even of a scirrhus or almost horny hardness. It will often very perceptibly grease the scalpel, or impart an unctuous feel to the fingers; and, on being exposed to the flame of a candle, will yield a considerable quantity of fat." (P. 477.)

An analysis was made of a portion of fatty liver by Mr. G. Bird, and each pound of liver was found to contain 333.2 grains of a soft brownish fat.

The value of the following laudable attempt to connect this disease with an external sign must depend on its confirmation in more numerous instances, and by other observers.

"Having, in the course of my experience, been often struck with a remarkable appearance of the face in certain patients—an appearance dependent not so much on the expression of countenance, as the texture and aspect of the integuments,—and having observed the exact resemblance of the appearance in each case, I endeavoured to connect it with some corresponding uniformity in the accompanying disease; and at length arrived at the conclusion that, when strongly marked, it is indicative, if not pathognomonic, of fatty degeneration of the liver. It is purely integumental; as it is not confined to the face, but may pervade the whole surface of the body; although I am disposed to think that it is earliest observable, as well as most conspicuous, in the integuments of the face and backs of the hands. To the eye, the skin presents a bloodless, almost semi-transparent and waxy appearance: when this is associated with mere pallor, it is not very unlike fine polished ivory; but when combined with a more sallow tinge, as is now and then the case, it more resembles a common wax model. To the touch, the general integuments, for the most part, feel smooth, loose, and often flabby; whilst, in some well marked cases, all its natural asperities would appear to be obliterated, and it becomes so exquisitely smooth and soft as to convey a sensation resembling that experienced on handling a piece of the softest satin. Whether this condition of the integuments precede or follow that of the liver, and whether the two are necessarily associated in every instance, I am by no means prepared to offer a decided opinion; but having, on several occasions, confidently and correctly predicted finding the fatty liver, from having observed the particular condition of the integuments just described, I have ventured to make the crude fact known to the profession, in the hope, that, attention being once directed to such a starting point, something more interesting, and of greater practical utility, may result from its further investigation." (P. 479.)

The matter and manner of Dr. Addison's short communication make us regret that he has not more largely contributed to this number of the Reports.

We must confine ourselves to the numeration of the titles of the next four papers, as they either consist of isolated cases, without remarks which can be separated from the cases themselves, or they are incapable of abridgment. This latter observation applies to a clever paper of Mr. GOLDING BIRD, on "*Cystine or Cystic Oxide*," and to "*the Case of a large bony Tumour in the Face completely removed by spontaneous Separation; to which are added, Observations upon some of the Functions of the soft Palate and Pharynx*;" by Mr. HILTON. The other reason applies to "*Cases occurring in the Clinical Wards*;" and to "*Cases of Hernia, Popliteal Aneurism, wounded Ulnar Artery, and Malignant Tumour, with Remarks*," by Mr. BRANSBY COOPER.

A long paper (of fifty pages) on *Chlorosis and its Complications*, by Dr. ASHWELL, comes next. Its perusal leaves the impression either that Dr. Ashwell does not think clearly on the subject he writes upon, or that he is unable to express his notions with simplicity and precision, or both. Indeed the verbosity and diffuseness, together with the want of lucid order, seem to show that the imperfection must depend on both of these causes. This is the more to be regretted, as there is internal evidence in the paper that Dr. Ashwell has seen much of the disease in question, and (with regard to treatment) is a sensible and judicious practitioner. He

is of opinion with some French physicians—and we think justly—that chlorosis depends on a morbid condition of the blood, and that it does not necessarily spring from amenorrhœa; in the treatment, he advises the cautious use of purgatives and iron. This part of his paper is the best; but he afterwards confuses the subject much by discussing under the head of “complications of Chlorosis” what are usually considered as forms of hysteria. Thus, the anomalous headaches of young women, commonly, after the example of Sydenham, regarded as forms of hysteria, are called “complications of chlorosis from a functional affection of the cerebrum;” and this is an example of the lax way in which Dr. Ashwell employs words. It is not known whether such pains depend on the cerebrum, or cerebellum, or membranes, or bones or nerves supplying the parts above them; probably they sometimes depend on affections of each of these parts; and yet the word “cerebrum” is used, fixing the functional affection to one part out of very many, without any good grounds. The paper also is full of “prettinesses,” which become by their frequency offensive. The blood is almost always “the vital fluid;” diseases susceptible of cure “come within the scope of medical agency;” “the change from girlishness to womanhood is to be accomplished; puberty is viewed as the artificer of this transition.” Of a weak girl becoming stronger at this period it is said “perchance, some of the former delicacy may be merged in the slight increase of vital energy which has been evinced.” When the girl becomes healthy “the *tout ensemble* of the disease is gone;” if she becomes highly nervous, this is “the bequest of a very protracted chlorosis.” If every page had not abounded with such sentences (some of them put in italics,) we should not have alluded to them; for we always find much more pleasure in dwelling on what is really valuable. To a beginner unacquainted with disease we would not recommend this essay: yet we willingly allow that there are some hints, particularly as to the danger of functional passing into organic disease, well worth attending to: some of the cases are also very instructive.

We pass on to a paper of Dr. BRIGHT, on *Jaundice*, which is an admirable specimen of what such essays should be. It is full of valuable matter, clearly conceived and arranged and well expressed. No one can read it without feeling that he has a more methodical and practical knowledge of the disease than he had previously: if the facts which he had collected by reading and actual observation had not been before classified in his mind, and, from his inability to arrange them, he had found them all but useless, he will now admit that they fall into their proper order, and he can more clearly understand cases which were previously involved in much obscurity. It is not intended to be implied that Dr. Bright’s paper will completely elucidate the numerous and complicated causes of jaundice, which is only a symptom common to numerous diseases, and not a disease itself; but, by a simple arrangement of the diseases producing it, the information we possess is rendered more available. The paper is so complete in itself, and there are so few details which can be omitted without injuring the sense, that it is impossible to do it justice in our confined limits. We must content ourselves with a mere specimen of it, earnestly recommending its entire perusal to the reader. If the writer of this excellent monograph proceeds in the career which he has hitherto so successfully pursued, he will secure to his name

a place among the most honoured of British physicians. We were gratified lately by observing, in a Swedish journal, the disease of the kidney, first described by him, denominated *Morbus Brightii*. We think it probable that the plurality of Dr. Bright's pathological discoveries will soon render this term logically incorrect.

"The causes which generally give rise to Jaundice will, perhaps, admit of the following classification:—1. Congestion of blood in the liver. 2. Obstruction of bile in the biliary ducts, and more particularly in the larger ducts. 3. Chronic change in the structure of the liver. 4. Inflammatory action of the liver." (P. 604.)

The chief object of this communication is to illustrate the fourth class, and to this part of the paper we must confine our extracts.

Dr. Bright regards "a state of inflammatory action more or less generally pervading the liver," as one of the most common causes of jaundice. He considers this as differing essentially from the chronic action described under the third head, inasmuch as in the former the secretory portion rather than the connecting cellular tissue is affected; while the causes are also different, being, in the fourth variety, irregular diet, exposure, external violence, the irritating effects of biliary concretions, and of retained bile, and perhaps of mercury. Its progress varies.

"It frequently comes on very insidiously, with symptoms and feelings of general constitutional derangement, depression of spirits, slow pulse, oppressed breathing, wandering abdominal pains, constipated bowels, and sometimes sickness of the stomach. In a day or two, the conjunctiva becomes tinged; and in a few days more, there is universal bright bilious suffusion of the skin." (P. 614.)

"In other cases, the inflammatory action is attended with much more severe symptoms, with considerable pyrexia, quick pulse, flushed countenance, and dry tongue, while a jaundice of the most intense colour is diffused over the whole surface. The stools are, both in the more and less acute cases, of a light colour; but less decidedly so, and subject to greater variations than when the obstruction is mechanical; and occasionally, after a few days, give little evidence of deficiency of bile. The urine is deeply tinged. When the disease assumes its more active and febrile form, those symptoms referrible to the brain and nervous system, and which appear to depend upon the deleterious effects of bile circulating in the blood, are more intensely marked than in any other form of jaundice; and the tendency to hæmorrhage sometimes comes on very early, and is excessive. In some cases, rigors, which assume the form of irregular intermittent paroxysms, form a prominent feature, as the disease advances; and then it often happens, though not always, that suppuration is established; and this may be going on to a great extent, while still the jaundice has rather decreased, or varied exceedingly in its intensity." (P. 614.)

The condition of the liver varies according to the period at which the disease proves fatal; in general, it is not enlarged, and not unfrequently diminished in size. No bile is found in the minute ducts, and but little in the gall bladder. When the disease has terminated early, the liver feels rather soft: the surface appears variegated, of a light yellow and dark red or purple in patches, and certain portions project above the rest. In more protracted cases, where the skin is of that light lemon-colour which often bespeaks a very general disorganization of the liver, the structure is extensively altered, the acini whitish and hard, forming groups and clusters, generally forming a sheath around the portal vessels. In other cases the liver is pervaded with numerous abscesses.

"With regard to treatment, in cases where jaundice depends upon inflammatory action, it must always be decidedly antiphlogistic; but it is only where it presents

itself under the more violent forms, that general bleeding need be employed. In other cases, cupping from the margin of the ribs, and (as soon as the bleeding is stopped) the assiduous application of poultices over the liver, will be most important remedies. The combination of calomel, antimony, and opium, must be occasionally administered; and antimonials must be combined with the purgatives, which, in the form of pills, should be given to act regularly on the bowels, and should be aided occasionally by the sulphate of magnesia and other saline purgatives: and, in many cases, the saline purgatives, alternated occasionally with mercurials, are sufficient to cure the disease. A free and uninterrupted action from the skin is most desirable; and to promote this more effectually, the warm-bath may be very advantageously employed; and the poultice, while it restrains the patient in bed, assists forcibly, as a diaphoretic measure. Under treatment of this kind, a very large proportion of cases are completely cured; and where the result is otherwise, it generally arises from some complication of diseases; most frequently from previous disorganization of the liver, or from neglect, on the part of the patient." (P. 616.)

Eight cases are reported illustrating this form of jaundice.

Dr. Bright, in the *Gulstonian Lectures* in 1833, stated his views on the situation and structure of malignant diseases of the liver, and they were published at the time, we believe, in the *Medical Gazette*. He again brings them forward, and illustrates them with cases and drawings. We must refer our readers to the Reports themselves for the proofs of the point which Dr. Bright wishes to establish, that the chief, if not the only early development of the disease is in the cellular membrane connecting the acini, rather than in the acini themselves. Both the papers of Dr. Bright are illustrated by engravings of much beauty.

The remaining papers are "*a Case of Wound of the Abdomen followed by Protrusion of a large Portion of Omentum*," by Mr. KEY, in which the omentum, which could not be returned without dilating the wound, was allowed to remain, and it gradually shrunk; some "*Ophthalmic Cases*" very judiciously treated, by Mr. MORGAN; and a remarkable "*Case of Misplacement of the Stomach*," by Dr. BRIGHT. This last we regret that we cannot give entire; and it will not admit of abridgment.

ART. IX.

Transactions of the Provincial Medical and Surgical Association.

Vol. IV.—*London and Worcester*, 1836. 8vo. pp. lxxvi. 578; plates.

THE present volume appears in every way to justify the opinions which we have already expressed of the importance and usefulness which the excellent Society from which it emanates seems destined to attain. Many of the papers are calculated to add to the sum of our knowledge, and to advance materially the progress of medical science; and we are especially gratified to observe that the attention paid to the subjects of Medical Topography and Medical Statistics is such as to lead to the anticipation of the best results. In the volume before us there are several papers belonging to these departments of medical enquiry, including the continuation of Dr. Forbes's Essay on the Medical Topography of the Land's-end; a paper on the Medical Statistics of Malvern and its immediate Vicinity, by Mr. Addison; Statistical Observations on the Medical Charities of England and Ireland, by Dr. Walker; with Hospital Reports by Messrs. Parsons, Ryland, Middlemore, and Johnson. To these,

however, it is not our purpose to allude on the present occasion, further than to direct the attention of our readers to them, as not only containing details of extreme value, but presenting models that may be carefully kept in view by other observers in a department which is yet in its infancy among us. The remainder of the volume is occupied partly with the proceedings of the Anniversary Meeting held at Oxford in the year 1835, including the Address read upon that occasion by Dr. Prichard; and a Report upon the Fevers and other Diseases which prevailed at Amsterdam during the year 1834, by Dr. Nieuwenhuys, one of the foreign correspondents of the Association; and partly with a series of Essays and Cases on miscellaneous medical subjects.

Perhaps no duty more important devolves upon the council of the Association than the selection of the individual who is to deliver the annual Retrospective Addresses; for, if any value attaches to these productions, it must arise from their presenting a correct and faithful account of the progress made not only in one branch, but in the whole aggregate of science which in any way bears upon the advancement of medical knowledge. To accomplish this object effectually requires a combination of natural talent, acquired knowledge, and sound judgment, which perhaps falls to the lot of few individuals. Hitherto the Society has been fortunate in this respect, and we are glad to perceive that Dr. Prichard not only entertains opinions similar to those here expressed, but that he has also fulfilled the task allotted to him in strict conformity to them. If there is any fault to be found with his Address, it is the very uncommon one, that it betrays perhaps a deeper acquaintance with the medical literature of other countries than with that of our own.

No one can doubt that an extraordinary degree of intellectual activity prevails in the present age, and that there is a steady and rapid progress in medicine as well as in the other sciences, requiring some such periodical summary as these addresses afford. "If," says Dr. Prichard, "we enquire by what steps a transition has been made into the way of thinking and reasoning on medical subjects which characterizes the present time, we shall find that one main part of this revolution has consisted in a partial abandonment of theoretical systems. It required a long training of the human mind before it could be brought, in every department of science, to recognize the real boundaries of attainable knowledge. In no department are these boundaries more restricted than in medicine. Ultimate facts present themselves on every side: we neither know by what operation the most powerful morbid causes, such as miasmata, produce their effect upon the human body; nor how the most simple remedies act in restoring a healthy state. Every dose of jalap is given empirically, and is expected to purge merely on the ground of analogy, and because other doses of jalap have been already known to purge. How, then, in relation to subjects of this nature, can a doctrine of causes and effects, or (in other words) a system of theoretical pathology, be erected on a secure foundation?" It is, in fact, the abandonment, at least in part, of the speculative mode of studying our science, which so long held the most philosophical minds in thralldom, and the following out of other and more legitimate methods of enquiry, that characterizes the present era. It is now that we are for the first time bringing to bear upon medical science those grand principles of the induc-

tive philosophy which can alone form the basis of any solid superstructure in this as well as in other departments of knowledge. The brilliant theories of former times, considered as general systems of pathology, are at the present time little better than mere matter of historical detail; interesting, indeed, as tracing the progress of the human mind, which, in its search after truth, is ever liable to be led away by every speculation which crosses its path, but still of no real avail in the attainment of the professed object of its pursuit. The futility of such speculations being at length felt and acknowledged, the cultivators of medicine then had recourse to the observing and accumulating of facts. These, however, of themselves, and as isolated truths, are comparatively of little importance; and, even when taken collectively, from their number and apparent discrepancy, lead only to confusion; a confusion which the records of each day tend but to increase. But we are now in a condition, by a cautious application of the principles of induction, to unravel many of their intricacies; and we hope that the Addresses at each succeeding anniversary of this Association will record the establishment of some of those real principles which are alone to constitute the data from which more general laws can be deduced, and the groundwork upon which the true system of pathology is hereafter to be constructed.

The first part of the Address before us contains a condensed view of the state of medical science previous to the present period; and though, after the excellent summaries which have been already given by his predecessors, the author might perhaps have passed over, or at least materially shortened, this the introductory part of his Address, without detriment to the objects of the Society, still we must admit that, viewed as a separate production, and not as forming part of a series, it possesses the appearance of a more finished and complete essay. With regard to the actual progress made during the past year, Dr. Prichard enters upon its consideration under four sections,—1. History of Diseases, or Nosography; 2. Technical Investigation; 3. Necroscopy, and Pathological Anatomy; and, 4. Observations on the effects produced by particular agents. Various questions which have lately received elucidation are then entered into; but, for information upon these points, we must refer to the work itself.

The *report* of Dr. NIEUWENHUY, of Amsterdam, presents an interesting account of the state of disease in that city and its neighbourhood, during the year 1834, and more especially of the intermittent and remittent fevers, and of the epidemic scarlet fever, which then prevailed. The report is accompanied by some meteorological observations and statistical details, to which we may hereafter have occasion to refer. The account of the scarlatina, as it occurs in this marshy country, is worthy of consideration and comparison with the phenomena presented by the same disease in localities less exposed to vegetable miasms. Dr. Nieuwenhuys believes the origin and extension of the scarlet fever which prevailed at this period to have been epidemic rather than contagious, although he admits that it may become contagious under favorable circumstances. The epidemic nature of the disease upon this occasion is perhaps confirmed by the results of a table given by the author, which shews a rise, increase, and diminution of the scarlatina, nearly corresponding with the progressive changes of the intermittent and remittent

fevers of the same period, and affords also some support to the opinions of those writers who consider the scarlet fever in its different forms to be merely a modification of ordinary fever, whether remittent, simple continued, or typhoid. Dr. Nieuwenhuys found the belladonna to be of little or no use as a preventive of the disease; the fever taking place in some instances where it had been employed, whilst it did not occur in others in which it was not had recourse to.

The essays and cases contained in the fourth part or section of the volume, are the following:—1st. *On the Physiology and Pathology of Intermittence*, by Dr. COWAN, of Bath; 2d. *A Memoir on the Closing of Moist Anatomical Preparations*, by Mr. CROSSE, of Norwich; 3d.

Observations on the Effects of the Secale Cornutum, by Mr. CHAVASSE, of Birmingham; 4th. *On the Unity of Organic Structure*, by Dr. PARIS DICK, of Bristol; 5th. *On Hydrometra*, by Mr. COLEY, of Bridgenorth; 6th. *Records of Ovarian Tumours*, by Dr. BARLOW, of Bath. The cases are, one of *Neuralgia of the Uterus*, by Dr. HOLBROOK, of Crickhowell; a case of *Disease of the Pudendum*, by Mr. BRAYNE, of Banbury; a successful case of *Cæsarean Operation*, by Mr. KNOWLES, of Birmingham; and a case of *Fungoid Tumour and Melanosis*, by Dr. NORRIS, of Stourbridge.

Dr. COWAN'S *Observations on Intermittence* deserve a careful and attentive consideration, constituting, as they do, what we believe to be the first attempt at the investigating of this subject in a correct and philosophical manner. The pathology of intermittence has hitherto been chiefly studied in relation to the fevers of marshy districts, and to some varieties of neuralgia; but in each of these cases in a very imperfect and unsatisfactory manner. This is perhaps, in part, to be attributed to the undue importance hitherto attached to the derangements, whether functional or otherwise, of the vascular system, and to the doctrines of inflammation, as forming the sole ground-work of our modern views of pathology. The attempt to refer every disease to an inflammatory process going on in some part or other of the animal system, and every morbid change which dissection reveals to the effects of this process upon the organization, has, we are convinced, tended much to retard the progress of our science. The phenomena of intermittence have, however, always constituted a stumbling-block in the way of this exclusive pathology; and even Broussais himself, with all his ingenuity, and all the force of his sophistry, has been unable to obviate the objections to the *Doctrine de la Médecine Physiologique* which the phenomena of intermittent fever present. Dr. Cowan, in the first place, examines the subject of intermittence physiologically; that is, in the natural and healthy condition of the animal system; having previously endeavoured to remove a source of confusion and error in which the subject has occasionally been involved, from a want of due discrimination between this property and that of periodicity. This latter he defines to be “the recurrence of certain phenomena, at either regular or irregular intervals, which are constantly reproduced by the renewed presence of the cause on which they originally depended; phenomena which would necessarily cease, were the same cause, or one capable of producing similar effects, never to return.” Day and night, and summer and winter, are then referred to as affording instances of periodicity depending upon the regular action of an external

cause. Intermittence is thus characterized: "By *intermittence* we understand a succession of similar or nearly similar phenomena, regular or irregular in their periods of activity or repose, not resulting from the repetition of influences from without, but from some functional peculiarity inherent in the organs themselves. By this definition we at once set aside the consideration of those annually recurring changes in the inorganic and vegetable world, arising from causes to which we have already referred; as well as all those healthy or morbid modifications of the functions of animal life which are the simple result of altered external conditions, on whose presence they essentially depend for both existence and reproduction." Excepting the functions of circulation, respiration, digestion, and generation, considered in themselves, from the operation of this principle, Dr. Cowan proceeds to shew that it is closely connected with the functions of the nervous system. But here we must allow him to speak for himself.

"One of the most remarkable peculiarities is the necessity for periods of *repose*, of cessation from movement, and of insensibility to external impressions. These periods, almost, if not entirely, absent in the first rudiments of animal life, become gradually prolonged and distinct as we ascend, and are additionally necessary in proportion as organization approaches its highest point of development. They are not, as in the examples we have hitherto examined, the result of certain external physical changes, (though, in the great majority of cases, they coincide with them), which, by their more or less regular recurrence, induce a corresponding increase or decrease of functional activity, but arise from a condition of organization itself; a condition only common to one portion of our frame, considered physiologically; viz. to the nervous system which presides over the functions of animal life. No one supposes that the circulation or respiration ever ceases to be active, although they are undoubtedly modified by a state of repose of the rest of the body. Should one or the other cease, life becomes impossible, and we can form no idea of a living being independently of their influence. But, when the moral and intellectual faculties, the power of locomotion, the voice, the sight, the hearing, the smell, and the touch, become inert, we never imagine that life is extinct, but regard this temporary cessation of all our voluntary functions as a natural consequence of their dependence on the activity of certain central portions of the nervous system, to which we tacitly concede the fact of *intermittence*, though often forgetting to view it in the light of a functional peculiarity." (P. 271.)

Having thus shewn, as we think satisfactorily, although, from the condensed manner in which Dr. Cowan expresses himself, somewhat obscurely, that the principle of *intermittence* is, considered in its manifestations in the state of health, an attribute of the nervous system, he proceeds to draw the inference that the phenomena of *intermittence* evidenced in the animal body when labouring under disease, are to be considered as connected with and resulting from some morbid change, some functional derangement of the same system. Now, although we are not quite prepared to admit that this inference is logically to be derived from the premises laid down, we are still inclined to think that the conclusion is in itself correct. It is certain that, in those cases in which *intermittence* is most marked, however they may differ amongst themselves, a mode of practice which is successful in one is more or less applicable to all, and commonly avails where other methods have previously failed. The phenomena of *intermittence* in the state of health so far differ from those observed in the state of disease, that, while the latter are marked by the continued exercise of the cerebral and nervous functions and the

suspension of superadded phenomena, the former are characterized rather by the absence or imperfect fulfilment of these functions as they are found to occur in their active and healthy state. In either case, however, there is an evident tendency in the intermitting phenomena in a state of disease to become continued. Thus, in the case of the temporary suspension of the mental operations which occurs in health, as, for instance, during sleep, a more excited state of the functions of the brain and nervous system leads to the continuance of these organs in a state of activity, and a consequent suspension of the regular, and in this case natural, intermission. Again, in the phenomena of intermittence as they occur in morbid states,—in intermittent fever, for example,—we have the undue excitement, or otherwise altered condition, which prevails during the paroxysm, passing through all the stages of imperfect intermission, as shewn in remittent fevers of various degrees and types, until the intermission or suspension of superadded phenomena is completely lost in those febrile states which are commonly termed continued fever. Dr. Cowan has scarcely carried his observations to the extent which the state of our knowledge admits and the importance of these views demands. At the same time we are fully aware that the subject is involved in difficulties of no ordinary kind, requiring for their elucidation much patient research, together with considerable discretion in the admission or rejection of such facts as seem to bear upon it. We hope, however, notwithstanding these difficulties, that the next volume of the Transactions will shew that Dr. Cowan is disposed to undertake this investigation, and to prosecute the enquiry until its relation to several interesting points of pathology with which it is intimately connected shall have been fully ascertained.

Mr. CROSSE's Memoir *on the Method of securely closing Moist Anatomical Preparations preserved in Spirit*, we must pass over, as, although well deserving the attention of the practical anatomist, it is not well calculated for analysis in our pages. It is a very valuable paper.

The observations on the effects of the *Secale Cornutum* by Mr. CHAVASSE are highly deserving of the attentive consideration of those who are engaged in the practice of midwifery. According to the experience of this gentleman, two momentous evils are to be feared from the incautious use of this powerful medicine, especially in first labours, to which Mr. Chavasse wishes it to be understood that his remarks more particularly apply. These are, first, the death of the child; and secondly, retention of the placenta, with hour-glass contraction of the uterus. Two cases are related, of which we select the following for quotation, as being the shorter.

"Mrs. H., a delicate woman, thirty-six years of age, had been some hours in labour, the presentation being natural, when the liquor amnii escaped, and the pains, which before were regular, and, though slow, increasing in frequency, became suspended for three-quarters of an hour; the child being lively and troublesome. The circumference of the os uteri was now equal to that of a crown-piece, and its edges, though firm, yielded to pressure. I administered two scruples of powdered ergot. In twenty minutes it began to manifest its power, by producing pain in the lower part of the abdomen and back, which soon became severe, and continued without intermission for full half an hour, when she became quite easy. During this time there was but little bearing-down sensation, and I found, on examination, that neither the os uteri nor perineum had undergone any material change. She continued free from pain for nearly an hour, enjoying, in the interval, a little refreshing sleep. She was awaked

by a return of the pains, which soon becoming severe and sensibly effective, the perineum was speedily on the stretch, and in less than half an hour my patient was delivered of a fine still-born child. After waiting full half an hour, the uterus in the interim shewing no disposition to throw off its contents, (although the belly and loins had been well rubbed, and the womb itself forcibly grasped from time to time with the hand, but without the effect of producing satisfactory contraction of the organ,) my patient began to flood considerably. Unable to trace the insertion of the fucus into the placental mass, I suspected there was hour-glass contraction; and, on introducing my hand, my suspicions were confirmed. I immediately withdrew it, gave her fifty drops of tincture of opium, and, after waiting half an hour, again passed my hand into the cavity of the uterus. The constriction was soon overcome; and as there was no adhesion, the after-birth was easily brought away. My patient ultimately did well, but no conception has since taken place." (P. 309.)

These cases are followed by some observations tending to shew that, since the employment of the ergot, the number of still-born children, both in this country and in America, has greatly increased. That retention of the placenta has also become much more frequent from the same cause may be gathered from the following extract.

"This event," (retention of the placenta,) says Mr. Chavasse, "has taken place, in my own practice, in twenty-three instances, during a period of *seven years*. In *eighteen* of the cases the children were still-born, and in *all* of these ergot had been administered. In the practice of my relative and partner, Mr. P. H. Chavasse, nine cases of still-born children have followed its use; and my experienced and valued friend, Mr. Jukes, a surgeon of the General Hospital in Birmingham, is so convinced of the fact, that he has long since abandoned its employment altogether." (P. 312.)

In a letter from Mr. Jukes which follows these remarks, it is stated that, in his early trials with the ergot, that gentleman "had no less than six cases of retention of the placenta almost in succession, three of which were well-marked cases of hour-glass contraction," five of the infants were still-born, and in four of the cases no pregnancy has since taken place. The os uteri was in each instance fairly dilated previous to the employment of the drug. We need not observe that the subject imperatively calls for the most careful and anxious investigation on the part of the profession, especially of such of its members as are employed in the management of this class of cases.

Dr. PARIS DICK's paper on *the Unity of Organic Structure*, we pass over for the present, as it is not yet brought to a conclusion, and because the part which is here published contains little with which our readers are not already acquainted.

The highly interesting cases and observations of Dr. BARLOW, which he entitles "*Records of Ovarian Tumours*," require a more extended notice. There are few of our medical brethren who have been much engaged in the practice of their profession but will agree with us in the opinion which we have been compelled to form, that the treatment of cases of ovarian disease has hitherto been not only unsatisfactory and delusive, but too frequently even destitute of any thing like either science in the selection of such remedial measures as have been employed, or steadiness or precision in the use of them. This has no doubt arisen from the intractable nature of the disease, from the length of time over which its duration extends, and from the conviction that those cases in which active measures were resorted to have seemed more speedily to arrive at a fatal termination than those in which nature has been almost entirely left to her own resources, or at least in which the physician has for the

most part been content with palliating the symptoms as they become urgent. It was therefore with some curiosity that we turned to this article, being desirous of knowing the opinions of a physician so eminently qualified as Dr. Barlow, upon these obscure and unmanageable affections; and it was with no small gratification that we observed, that, by the application of the sound principles of pathology advocated in a work of the author's, not so generally known as it deserves to be,* to the treatment of this class of disorders, some at least of these cases, especially such as are of more recent origin, will be found to yield even under circumstances apparently of the most adverse description. We do not mean here to hold out the fallacious hope that any mode of treatment, however well conceived and adapted to the peculiar features of the case, and however judiciously carried into effect, can remedy that extreme state of disorganization of the ovary which dissection too often reveals; and Dr. Barlow is himself too close a reasoner to derive such an inference even from the extraordinary cases which he relates.

"Whoever has seen the mass of disease exhibited by an ovarium when it has become thoroughly disorganized, will readily admit the utter hopelessness of such total and extensive disorganization being remedied by any curative process with which we are familiar; any which our ordinary medicinal agents permit us the means of instituting or promoting. In cases which in the earlier stages yield to medical treatment, so far as to exhibit reduction or subsidence of tumour, we can have no demonstrative evidence of what was the kind or degree of organic change which produced the tumour; but it seems a fair inference, from the simple fact of such subsidence, that the tumour had not attained the utter perversion of all natural structure, by which the advanced disease is almost universally characterized. And this distinction, though resting on probability alone, is not unimportant; for it suggests, in the first place, that there is a stage of this disease produced by morbid actions alone, and in which these have not yet caused irremediable disorganization; and, secondly, it incites and encourages those remedial procedures by which the disorganized process may be arrested in that stage, in which alone there can be any well-founded hope of their proving effectual." (P. 392.)

In these sentiments we most fully concur, and if Dr. Barlow's "*Records*" were of no further value than to impress the truth, (for such we believe it to be,) that there is a stage in which this disease, however apparently unfavorable the external signs may be, has not proceeded to irremediable disorganization—a stage in which a hope may still be rationally entertained of restoring the normal condition of the organ, at least as far as the performance of its functions may be taken as evidence of such restoration,—they would still be of vast benefit, by the encouragement which they hold out to steady and persevering efforts directed towards subduing the formidable disease with which the practitioner has to contend.

Eight cases of ovarian disease are related. Of these, five terminated fatally, and, although of considerable interest and value, as affording good examples of the progress and pathology of the disease which it is the object of the paper to illustrate, need not now detain us. The remaining three, viz. cases 6, 7, and 8,† are instances of a favorable termination.

* An Essay on the Medicinal Efficacy and Employment of the Bath Waters, &c. by Edward Barlow, M.D., 8vo. Bath, 1822.

† Case 7 will be found at p. 422; but the number is omitted, probably by an error of the press.

We regret that we are unable to lay these cases before our readers in full, as they possess many points of great interest for consideration, and afford admirable illustrations of the judicious mode of treatment pursued by Dr. Barlow, and of patient perseverance in its application. In the first of these, (that of Sophia Wilkins,) from its first coming under treatment in September, 1828, until the complete removal of the symptoms of ovarian disease in June, 1832, the patient was bled from the arm eighteen times, losing 190 ounces of blood; 386 leeches were applied at thirty-one different periods; and she was twenty-one times cupped, 236 ounces of blood being taken. In addition to these measures, she had twelve blisters, and purgatives, and other parts of the antiphlogistic treatment were had recourse to. She has since her recovery been seen repeatedly by Dr. Barlow, under slight indisposition, but "there has been no renewal of ovarian derangement evinced by either tumour or pain."

We shall pass over the next case, that of Alice Kirkham, who has since married and become the mother of a healthy child, in order that we may insert an abstract of that of Mary Ann Scudamore, aged twenty-one, who, on the 25th of July, 1829, became an out-patient of the Bath United Hospital. She had at that time acute pains of the abdomen, with confined bowels, having previously suffered from diarrhœa. The kidneys subsequently becoming involved, and the urine suppressed, she was admitted an in-patient, and, after a course of depletory measures, with small doses of calomel and opium to affect the gums, she recovered, and was discharged well on the 1st September. The pains however returned, and she was readmitted on the 9th, there being then fulness in both iliac regions. On the 10th it is noted, "that these tumours were prominent, and separated by a depressed line extending from the umbilicus to the pubis." From this time to the 17th of November, when she was discharged better, she had occasional diarrhœa, with affections of the head and chest, for which, in addition to the depletory measures which were again had recourse to, appropriate remedies were employed. The gums were again affected with calomel and opium, and tartar emetic frictions used over the abdomen. On the 26th of December she again came under treatment, being then affected with cough and dyspnœa in addition to the abdominal symptoms. "The abdomen was more full, the breathing much oppressed, and there was œdema of the lower limbs." She was received into the house on the 6th of January, and suffered much from the abdominal symptoms, with incidental affections both of the head and heart, including several epileptic attacks, for which free depletion, general and local, blisters, calomel, and measures directed to relieve the incidental local affections, were assiduously employed. "On the 6th of April, the left hypogastric tumour had become so prominent, that a large caustic issue was established over it. From this time all her maladies subsided, and on the 4th of May she was discharged 'much relieved,' and made an out-patient." From this time until the 8th of September, when she was again admitted, she suffered much from diarrhœa, which however abated soon after her coming into the house. A cautious trial was then made of iodine, beginning with small doses, and this was persevered in for about a fortnight; when, in consequence of pains of the head and side, with inordinate action of the heart and hot skin, supervening, it was obliged to be laid aside. By bloodletting, &c. the disturbance was

allayed, and she was discharged on the 9th of November, the report being — “general health much better, tumours remain.” On the 22d of January, 1831, she was again admitted, requiring diligent and active use of remedies for successive affections of the head, chest, and abdomen. She was bled, cupped, and leeches repeatedly, had blisters several times, and iodine was again tried both externally and internally. “The hypogastric tumours advancing, caustic issues were formed over both, about the middle of April. From this time the contingent maladies, which had previously abated, continued to decline, and she quitted the hospital on the 20th of May, “much relieved.” These issues remained open till the end of July, and were renewed towards the close of August, at her own desire; notwithstanding which, however, and the evident benefit derived from them, she suffered much from the various ailments she had previous undergone, with the addition of numbness and loss of power in the lower limbs, and also in one arm. “Under suitable treatment, however, this passed over, and improvement, general and progressive, ensued; the general health becoming reestablished, and *the tumours, at length, sensibly subsiding.* On the 16th of December she left the hospital, reported as “greatly relieved; tumours considerably reduced; slight diarrhoea alone remaining.” From this time to the middle of May, 1833, she suffered much from occasional returns of her former symptoms, for which bleeding was still the remedy which could be most relied on; and, on the 1st of May, a caustic issue was once more formed in the left hypogastrium, in consequence of some evidences of renewed disturbance in the left ovarium. At the close of September she again appeared, affected with diarrhoea and pectoral complaints; but by this time “the ovarian tumours had entirely subsided, and such was her reliance on the amendment experienced in this respect, that, encouraged by the example of her fellow-sufferer, Alice Kirkham, she too had become a married woman.” We need not present the history of the case further than to state in the words of Dr. Barlow that “on the 8th of November, (1834) she was safely delivered of three female children, who were baptized by the names of Faith, Hope, and Charity. She suckled the whole for the usual period, and both mother and offspring continued afterwards in perfect health, as I had repeated opportunities of witnessing.” It may be right to add, that, “in the course of this protracted disease, she was bled forty-five times, to the extent of 384 ounces; was cupped twelve times, to 102 ounces; had 408 leeches applied; sixteen blisters; and six caustic issues, four of these being applied over the left ovarium, and two over the right.”

We have dwelt so long upon the preceding memoirs, that we have little space to do more than refer to the cases which remain, although they are of much interest, particularly that of *successful cesarean operation*, by Mr. KNOWLES, of Birmingham. For the same reason, were we not precluded by others of a different kind, we should be obliged to pass over Dr. CONOLLY’s *biographical Notice of Mr. JENNINGS*; and we only allude to it here to express our regret at the loss which the profession has sustained by the decease of this ardent cultivator of medical science. The career of Mr. Jennings was indeed brought to an early close, so early as wellnigh to have prevented him from becoming known beyond the precincts of his own more immediate circle of attached friends. But

to those of our professional brethren who reside in the midland counties, and more especially to many of his fellow members of the Provincial Association, we can appeal for the truth of the remark, that, bright as was the promise, the unwearied ardour with which he cultivated his profession as a science, no less than the talents natural and acquired which he brought to it, would, had his life and health been spared, more than have fulfilled anticipations so justly excited, but, alas, so fatally overthrown.

ART. X.

1. *On the Disease of the Hip Joint, with Plates, plain and coloured.* By WM. COULSON, Consulting Surgeon to the London Lying-in Hospital; late Surgeon to the General Dispensary, &c. 4to. pp. 111. London, 1837.
2. *On Deformities of the Chest.* By WM. COULSON, Consulting Surgeon to the London Lying-in Hospital, &c. London, 1836. Small 8vo. pp. 71. Four Plates.

ALTHOUGH these works bear the date of different years, they both appeared in 1836, and are the production of the same author. We shall notice them in the order of their size. Both are very elegant volumes, and do great credit to all concerned in "getting them up,"—the paper-maker, printer, engraver, and even the binder. Mr. Coulson is evidently a man of taste as well as an accomplished surgeon. We hope, however, that his next volume will not follow its predecessor quite so speedily as those before us have respectively done.

In his preface to the work on the hip-joint, Mr. Coulson has made known, as the best possible guarantee for the value of his observations, his connexion with the Royal Sea-bathing Infirmary at Margate, wherein the number of hip-cases are very great. His principal object seems to be, to trace all the subsequent morbid changes which the structures of the hip-joint undergo to a primary affection of the synovial membrane. His dissection of cases in the earliest periods of disease lead him to this conclusion. "These appearances (he says,) lead me to infer that the disease commences most frequently (if not invariably) in the synovial membrane." (*Advertisement*, p. vi.) How far he has succeeded in establishing this principle, the survey of the work which we propose to give will shew.

The First Chapter, "On the Anatomy and Physiology of the Hip-joint," is a suitable and natural introduction to those which follow, but presents nothing of novelty.

In the Second, "On the Causes of the Disease of the Hip-joint," Mr. Coulson thus expresses himself:

"Many considerations prove that this is a constitutional disease, and that the affection of the hip-joint, and all its metastases, are the mere external demonstrations of a pathological condition, in which extensive function, not a limited locality, are involved." (P. 10.)

He proceeds to consider this as a disease "mainly" of secretion, and produces nine especial reasons on which he grounds his opinion. He

condemns the use of local measures, such as "issues, setons, moxæ, &c." as valueless and pernicious:

"For myself I must confess that the signal failure of these means, the exacerbation of nearly every case in which they have been employed, is the circumstance which has led me to these pathological reflections, and to that which seems to me a rational method of treatment." (P. 12.) "Previous writers on this subject have ventured to suppose that, when this disease appears in scrofulous persons, it is at least a consequence of constitutional affection. I have endeavoured to show that it is always not a consequence, but a mere external symptom of constitutional disease." (P. 20.)

Our author has truly simplified the subject to some purpose. He has referred the local disease to one local origin, and has transferred the burden of the local disturbance to one constitutional disorder. Thus, when we have just escaped from the thralldom of the one system of treatment for all diseases of the joints, we find ourselves carried back to it by Mr. Coulson. We had ventured to hope that the labours of Sir B. Brodie, and the researches of others who have since investigated these subjects, had emancipated us from the almost empirical systems which formerly prevailed in the treatment of these diseases. Whilst, therefore, we cannot agree with Mr. Coulson in his sweeping condemnation of local treatment, and in his assumption that the constitutional affection is all in all in these diseases, we yet consider his views respecting the constitutional disturbances which accompany them to be very correct. But we cannot persuade ourselves, after a good deal of experience in such cases, that any practical surgeon can place his whole confidence in constitutional measures, or altogether overlook the independent action of local disease. We are quite satisfied that energetic applications to the seat of disease are first to be employed,—no doubt in conjunction with constitutional remedies, which will much aid us in the subsequent progress of the cure.

The whole of the Third Chapter, "On the Pathology of the Hip-joint," is devoted to the consideration of the primary origin of the disease. Mr. Coulson has here collected the opinions of various authors; of these, some differ from him, viz. Albers, Rust, Boyer; some speak of disease as sometimes commencing in the synovial membrane, viz. Wickham, Mayo, Tyrrell, and Key; while Cruveilhier thinks that, in nineteen out of twenty cases, disease commences in the synovial membrane. Mr. Coulson's own opinion does not appear to us to be backed by sufficient authority, or by facts sufficiently numerous and unquestionable, to lead us to consider that he has established his case. On the contrary, we have ourselves witnessed the occasional want of diseased action in the synovial membrane in cases where the bony part of the head of the femur had undergone considerable alteration: and in other joints, especially the knee, our observations have been much more numerous, and lead us to the conclusion that there is no structure which enters into the composition of the joints that may not be the seat of primary disease. We will go further, and say that no surgeon performs his duty who does not ascertain, by the distinguishing symptoms, where the actual seat of disease is, and apply his remedies accordingly. The object of the work of Sir B. Brodie, and subsequently of Mr. Wickham's, has been to set forth these distinctions and their characteristic symptoms.

The observations contained in Chapter IV. "On the Morbid Anatomy of the Hip-joint in this Disease," appear to us to be perfectly correct, but present little or nothing of novelty.

Chapter V. is, "On the Symptoms of the Disease of the Hip-joint." Mr. Coulson has divided the symptoms which occur during the progress of disease of the hip into three stages. The first stage is that in which the altered state of the limb has not arrived, in which the symptoms are only premonitory, such as stiffness, limping, pain; the second stage is that of elongation; the third, that of shortening. It seems to us that the first stage, as marked out by the author, is often undefined; it certainly is often unheeded, and one in which no decided diagnosis can be formed; it blends itself, too, in most cases, so closely with the symptoms of the second stage, that it can hardly be recognized.

The elongation of the limb is, and has been, a stumblingblock to surgery, and no quite satisfactory cause has yet been discovered for this symptom. The explanations commonly given are the four following:—1, that by Mr. Ford, of the filling up of the acetabulum, and consequent pushing out of the head of the femur, whereby the leg is supposed to be lengthened; 2, the descent of the pelvis, and consequently the fall of the limb with it; 3, that suggested by Mr. Wickham, that there exists in reality no actual elongation, but that the limb is rendered rigid by the action of the external rotators, and a deception thereby created in the measurement of the two legs, the inflamed leg being thrown outwards and away from the sound one. The 4th explanation is that recently given by Mr. TYRRELL, which we have noticed at some length in another article. (See Review of *Guy's and St. Thomas's Reports*, p. 146.) We do not by any means consider that Mr. Coulson has set this question at rest: he leans to the first explanation. The shortening of the leg in the third stage is explained by Mr. Coulson as the effect of muscular action. He himself believes, and has brought the evidence of Mr. Liston and Mr. Wickham to prove the rarity of the occurrence of actual dislocation; a circumstance of the highest importance in the treatment of the case. The melancholy ravages produced in the last stages of this complaint are accurately noticed; destruction of the head of the femur and acetabulum, abscess, and the consequent hectic.

Chapter VI. is devoted to the consideration "Of the Diseases with which that of the Hip-joint may be confounded," and is very interesting. It gives information of many of the maladies which may be mistaken for real disease of the hip-joint. These have hitherto not been sufficiently noticed by writers on the subject, and we trust Mr. Coulson, in any future edition, will be enabled to add to the present valuable observations which this chapter contains. As might have been anticipated from the remarks in the beginning of this notice, the author, in Chapter VII. "Of the Treatment of the Disease of the Hip-joint," has mainly directed his attention to the treatment by constitutional means. He does not object to the milder forms of local remedies, but discards all severer measures. On this point we must still remain at issue with Mr. Coulson. From abundant experience, we can state that, in the acutest stage of the disease, the most direct and important benefits are derivable from the use of the seton: it often alleviates the sufferings of the patient in a few hours, and, as far as we are able to perceive, arrests the disease with extraordi-

nary power. Mr. Coulson's directions, in regard to the constitutional treatment, are most judicious. In distinguishing, as examples of inflammation of a tonic character, the cases brought on by cold, external violence, or the metastasis of gonorrhœa, from those of an opposite character spontaneously arising in subjects of a strumous diathesis, Mr. C. has given a practical lesson of great value: his directions, in conformity with this distinction, are clear and important, and merit the particular attention of the surgeon.

Our limits will not allow of our entering into further detail respecting this work; we hope that enough has been said to induce our readers to examine it and judge for themselves. Although we have felt obliged to object to some of the author's views, yet we consider that the treatise does great credit to Mr. Coulson, and recommend it particularly to the young surgeon, as well on account of the valuable matter which it contains as of the importance of the subject of which it treats.

The smaller work of Mr. Coulson, *on Deformities of the Chest*, is much more calculated to advance the knowledge of rational medicine among non-professional readers, than either to instruct the writer's medical brethren or to extend his own professional reputation. It contains nothing that is new or original, and, as a systematic treatise on the subject which it professes to investigate, it must be regarded as both meager and defective. As, however, what it contains is on the whole just, both pathologically and practically, and as we possess in the English language no distinct monograph on the affections treated in it, it may probably be useful to the junior members of the profession. Its proper destination, however,—whether so intended by the author or not we cannot say,—is to the general not the medical reader; and it is one of the too small class of works which can be safely and conscientiously recommended by professional men to the notice of their patients, and the parents and relatives of their patients. Indeed, we do not know a medical volume more calculated to produce beneficial effects on the mind of an intelligent parent; and to all those who are charged with the superintendence of the health of children and young persons, more especially females, we earnestly recommend its perusal. The details it contains of the lamentable evils flowing from the use of stays, in particular, illustrated as these are by striking and intelligible plates of the deformities, can hardly fail to make an impression on any rational mind.

The deformities of the chest treated of by Mr. Coulson are of two kinds, Natural or Spontaneous and Artificial; the former comprehending two varieties, compression or contraction in the lateral diameter, and compression or contraction in the opposite direction, from back to front; the latter embracing all the disfigurements produced by stays or corsets. The principal facts relating to the former class are derived from a memoir of Dupuytren, published in 1825; those relating to the latter are taken chiefly from Sömmering's essay on the Ill Effects of Stays, published as far back as 1788. The first variety of the natural deformity is well known under the name of "chicken or pigeon breast;" in the second, the sternum is depressed and the ribs are laterally prominent. These cases, according to our observation, are almost invariably the consequences of a scrofulous constitution; and we cannot but express our

surprise that Mr. Coulson should not at once trace to this general source the principal deformity, as well as the other concomitant morbid conditions, such as chronic enlargement of the tonsils, relaxation and intumescence of the mucous membrane of the air-passages, &c., instead of making the one the consequence of the other. Indeed, a marked defect in the author's pathological views is his failing to recognize, or at least fully to appreciate, the constitutional origin of the diseases which he notices; a defect which necessarily leads to imperfect therapeutic measures. "My trust (he says,) is in other than constitutional remedies." We venture to say that, however valuable and necessary "other remedies" are, no trust can be safely reposed in them without the co-operation of constitutional treatment. The author's mode of viewing this class of cases is the more remarkable, as, in the work already noticed, we had to complain of his views being too exclusively constitutional, both in his pathology and practice.

Mr. Coulson's surgical treatment of these deformities is very judicious; and we quite coincide in his views of the absolute necessity of combining muscular exercise with the manipulations immediately calculated to remove the more prominent deviation from the natural shape. It unfortunately, however, happens that the deformities are often most prevalent at so early an age as to preclude the employment of muscular action.

The following extracts describe the local modes of treatment recommended by Dupuytren, and adopted by Mr. Coulson with slight modification: the interesting and instructive case by Dupuytren with which they conclude (but which we cannot find room for,) places in a striking light the utility of the practice, and the necessity of perseverance in order to ensure its full benefits. In the chicken-breast, the local treatment consists in "frequent pressure upon the sternum from before backwards." The mode of applying this pressure is thus stated by Dupuytren:

"It consists, after the child has been placed sideways, in placing the hand or knee against his back, or, still better, his back against the wall, and placing the palm of the other hand upon the most projecting part of the sternum, and in pressing or pushing the anterior part of the chest towards the posterior part, by alternate movements, which, after some days' practice, accord so well with the movements of respiration, that the little patients, and those who exercise the pressure, soon learn to exercise it during the time of expiration, and to suspend it, so as to allow the breast to develope itself, during the moment of inspiration. During these movements, a sound is heard similar to that made by the air in alternately entering and escaping from a bellows. I have often attentively observed the immediate effects of this exercise: these effects are a flattening of the projection of the sternum, a greater or less bending outwards of the ribs, the momentary return of the chest to a more natural shape, respiration much more strong and perfect than in general, and, when the pressure is removed, the *immediate return* of the parts to their ordinary state, accompanied with a strong inspiration. These pressures should be repeated ten times—a hundred times aday, if it were possible, and continued for several minutes each time: their efficacy will be in proportion to their frequency and duration." (P. 21.)

Mr. Coulson adds,

"The chief difficulty which the practitioner has to struggle with in the treatment of this deformity, is that of impressing on the minds of parents the absolute necessity of perseverance in the use of pressure, and of disposing them to continue with sufficient assiduity a process of which the results cannot for some time be visible. When we must trust to hired nurses, the difficulty, I fear, would be almost insuperable.

Dupuytren accordingly says, 'The practising of these pressures must not be indifferently consigned to any one. A mother's affection alone is capable of the perseverance requisite for success : with this ally, there is scarcely any malformation of the kind we have described that cannot be remedied ; and I have seen children who were dreadfully afflicted become eventually strong and well constituted.'

"In the second kind of deformity local pressure may also be made, but in a different direction from that in the former case. In the first kind of deformity, it must be made from before backwards ; in this, from side to side. The child or patient must be placed with one side against the wall, and pressure be made either with the hand or the knee against the prominent part of the opposite side, from below upwards. By pressing the ribs upwards, we tilt the sternum forwards, and in some degree imitate the natural action of the parts. The pressure should be made during expiration and suspended during inspiration, as in the former case. Parents are frequently astonished to see the degree of pressure which can be kept up without producing any inconvenience." (P. 23.)

When the child is of sufficient age to use muscular exercise, the following method is recommended by Dupuytren in the pigeon-breast:

"The object is to raise up the sides of the chest, to separate them, to make them turn outward, and finally to restore them to their natural conformation. There is no exercise better adapted for this purpose than that which obliges persons labouring under this malformation to raise a weight suspended to a cord passed through two pulleys, by the aid of their arms and hands, during several hours daily. The end of the cord to be grasped should be fastened to the middle of a lever to be taken hold of by the two hands, the other extremity supporting a weight proportioned to the strength of the individual. The individual, standing upright, or even rising on tip-toe, to reach the lever placed at the extremity of the cord, seizes it with both his hands ; and employing the power of the muscles of the forearm, arm, neck, and chest, to bend the head, chest, and body downwards at the same time, must raise the weights at the other extremity of the cord, and alternately employ the flexor muscles to raise the weight, and the extensors to straighten the body." (P. 32.)

Mr. Coulson thinks a simpler and less irksome mode of exercise sufficient:

"I am now satisfied that carrying the arms backward and approximating the scapulæ, without at the same time depressing the ribs by the weight of the body and the action of the abdominal muscles, is all that is requisite. I object, however, to the employment of dumb-bells for that purpose, on account of the jerk which they produce, the involuntary action (that is, beyond a certain extent,) which that implies, and even the danger which it produces ; and I deem the Indian exercises, first described in this country by Donald Walker, in his 'Exercises for Ladies,' as greatly preferable to all others, both in these and every other deformity of the chest. They raise up the ribs and sternum, without the slightest counteracting tendency to depress them, and they give the fullest expansion to the chest. By these various means, if properly persevered in, the chest returns to its natural shape, and the whole system becomes invigorated. In the treatment of the Depressed Sternum, I strongly advise my patients to carry the arms back, at right angles to the body, or as far as they can ; and to desist, as much as possible, from stooping. And here also I think the Indian exercises the most efficacious ; for it is evident that whatever both raises and expands, or naturally rounds, the chest, at once elevates the depressed sternum, and depresses the elevated one." (P. 34.)

The second part of Mr. Coulson's work is, as we have already stated, taken almost entirely from Sömmering's essay, and contains a most terrific exposition, somewhat exaggerated doubtless, of the ill effects of stays and tight-lacing on the female economy. Copies are also given of the pictorial illustrations of the original author, exhibiting the inroads made on the natural shape by this Procustean invention. Some years since we had these engraved on wood, to accompany some extracts from

a valuable article on Physical Education, by Dr. Barlow, of Bath, which were published in the Penny Magazine; and, from the extensive use that has been since made of them by writers on Hygiène in this and other countries, we are led to believe that their appearance in that journal has been productive of considerable benefit. We doubt not but the finer copies of them in Mr. Coulson's book will greatly tend to the same desirable end: they ought to be hung up in every nursery and girls' school in the kingdom.

ART. XI.

The Speculum applied to the Diagnostic Treatment of the Organic Diseases of the Womb: an Inaugural Dissertation presented to the University of Glasgow, for the Degree of Doctor in Medicine. By JOHN BALBIRNIE, A.M. London, 1836. 8vo. pp. 335.

WE agree with Dr. Balbirnie, that the French writers have, within the last few years, added much to our knowledge of the pathology and treatment of uterine diseases; and it must be admitted, too, that upon these subjects *we* have not kept pace with our continental brethren. We have had, indeed, from English writers some valuable monographs upon uterine diseases; but those who are acquainted with the writings of Bayley, Dance, Desormeaux, Boivin, Lisfranc, &c. (to speak only of French authors,) must be well aware how largely their labours have been profited by, although the source from whence the chief information has been derived has not always been very openly acknowledged. For the purpose of exciting the attention of the profession in England to this important part of the pathology of females, Dr. Balbirnie proposes in the present work to "give an exact history of the diseases of the womb; to investigate their causes; to describe their symptoms; to point out the organic alterations on which they depend; to indicate their diagnostic characters; and to discuss the modes of treatment." (*Pref.* p. x.) The materials of the work are confessedly collected from various French writers, and from the practice of the Paris hospitals, where, during two years' study, Dr. B. devoted especial attention to these diseases.

The book commences with an "introductory address on the necessity of exploration by means of the speculum," and the more frequent employment of this instrument is urgently recommended, that we may be enabled to detect the existence of various diseases that must remain undiscovered by any ordinary examination. Dr. Balbirnie's anxiety on this subject, and his zeal for the new mode of exploration, are amazing. "We go forth (he says,) its advocate. We proclaim ourselves *the apostle of the speculum*. With that instrument we link our fate, and by that we will stand or fall." (P. 13.) And, as "the ladies are not obdurate, as their character is to be gentle and easily entreated," (p. 19,) Dr. B. feels persuaded that any difficulties on the score of modesty will easily be conquered, if the physician is firm in insisting on the necessity of such an examination. In the performance of so delicate a duty as the use of the speculum, Dr. B. hopes that, as far as regards ourselves, "all that dignity and that delicacy of feeling which ought to distinguish the

medical character will be for us a solemn duty and a solemn observance, never to be infringed, never to be compromised. If at any time (he adds,) the medical character should merge into, and invest itself with all the sanctity of the sacerdotal, it is certainly in such circumstances. He is for the time a high-priest, the alone privileged to enter into a *sanctum sanctorum*, whose recesses are not to be exposed to vulgar gaze, as its revelations are to remain buried in the depths of his own heart." (P. 21.) We join with the author in his "hopes," although we wish he had not adopted so absurd a mode of expressing them. We are by no means inclined to undervalue the practical advantages that are often to be obtained from the use of the instrument of which our author is the "apostle," but we are quite sure that, in this country, practitioners will never attempt, nor our patients ever submit to, the very frequent employment of it which he recommends.

We pass over the historical sketch "of the pathology of the diseases of the womb, from the Father of Medicine downwards," as well as the chapter "on the Womb," in which Dr. B. informs us that "it is in a sort an exterior organ;" and come to the "Causes of the Organic Diseases of the Womb." Engorgement and hypertrophy, with chronic inflammation of the womb, not unfrequently result from obstruction of the menses, and at the natural period of the cessation of the menses various "accidents," *anglice* symptoms, are to be apprehended. But our author must speak for himself. "At the critical age, again, it [menstruation] is, in many cases, no longer a moderate flux, as in former times: they are, in fact, torrents of blood frequently which are determined to the organ, and flow from it. Nervous accidents are awakened by the excessive losses, and by the cessation of a function which, during so many years, had exercised so important an influence on the moral and physical character of woman." (P. 52.) Lisfranc has met with organic alteration of the womb before the age of puberty; and Carron de Villards had a case in which "polypus, with engorgement of the body of the womb, existed in a child seven years old." We are sorry we are not informed how this "engorgement" was discovered in a patient of so early an age. It has been observed that, in very young women, the body of the womb is usually diseased; while, "in those living in sexual communication," the neck is more frequently the part affected.

Long and difficult labours not unfrequently lead both to acute and chronic uterine diseases.

"A remark it is important to make, regarding a very frequent cause of chronic leucorrhœa in females, here suggests itself: viz. the too long continuance of the lochial discharge; when this continues beyond five or six weeks, it is frequently the starting point of this infirmity, which remains long permanent. When it continues longer than a month, there is an indication at once to stop the discharge, by a slight cauterization of the mucous follicles of the orifice of the neck of the uterus; otherwise, there is the risk of a true catarrhal flux being induced." (P. 56.)

"Corpulent women with scanty menstruation is so common a circumstance as hardly to constitute a pathological state; but if the patient is thin and meager, the reverse of plethoric, and with but a scanty menstruation, we may be almost certain that there is something anomalous as regards the state of the uterus." (P. 60.)

It would be superfluous to offer any comment upon the absurd and ungrammatical mode of expression here used; but we differ from the

opinion expressed, as far as we can unravel it. We agree with the author, however, in admitting that "the *heredity* of certain uterine affections—cancer, for example,—is a point indisputable;" although we cannot admit that there is such a term as "heredity" in the English language. The symptoms of the organic diseases of the womb are briefly described in the third chapter. "The commencement of these diseases is often very slight, and takes place in a manner latent, and almost insensibly." The indiscriminate use of pessaries in all cases of prolapsus uteri, without taking into consideration the pathological state of the organ which has produced it, is very properly condemned.

"We may also rank among the symptoms of disease of the womb, *hysteria*. Much discussion has been agitated in the medical world regarding the seat and pathological anatomy of this disease. For us, the womb is clearly the seat of lesion; and an *irritation* of this organ, which is not so easily precised, whether of inflammatory or nervous nature, is the *point de départ* of the symptoms: and the fact we have already alluded to, of all the phenomena of hysteria being produced artificially at will, by irritating injections into the interior of the womb, is quite conclusive, we think, for this view of its pathology." (P. 73.)

That hysteria very frequently depends upon functional derangement or positive disease of the uterus, as its remote or exciting cause, may be safely granted; but that it *always* arises from the "not so easily *precised*" cause assigned by Dr. B., we can by no means admit; nor do we perceive that his general conclusion is at all strengthened by the fact, (*if indeed we understand his language,*) of "the voluntary determination of all the symptoms of hysteria," from throwing irritating injections into the cavity of the womb. Dr. B. is of opinion that *chlorosis* "has nothing to do with the uterus, in an infinite majority of cases." He contends, and we think correctly, that the uterus is only affected secondarily and sympathetically, as the result of the enfeebled energy of all the functions.*

Under the head of Disorders of Menstruation, the author enumerates "stormy menstruation," which variety, we are told, "is one of those comprised in the dysmenorrhœa of authors." In this "stormy menstruation" the patient suffers great pain, and an organic disease of the uterus may result if the case be neglected; the practitioner is enjoined to ascertain the state of the organ, "in the interval of the menses." "Sometimes the womb is found sound; the pains are then purely nervous. The woman *accuses* something which seems to lift up the belly; she experiences contractions and violent desires." (P. 90.)

The chief object of the sixth chapter is to urge the necessity of using the speculum in cases of mucous discharges from the vagina, that the real nature of the disease may be ascertained. The information afforded

* "A favorite *martial* preparation of M. Blaud, in these cases, has been crowned with much success. Take sulphate of iron and subcarbonate of potash, of each half an ounce; reduce separately these two substances to a fine powder, then mix gradually; add mucilage of gum adragant, q. s. to be pounded strongly, and the mass divided into forty-eight *bols*. His method of administration is as follows:—The first, second, and third days, a pill fasting in the morning, and one in the evening; the fourth, fifth, and sixth days, an additional pill at mid-day; the seventh, eighth, and ninth days, two pills morning and evening; the tenth, eleventh, and twelfth days two additional pills at mid-day; the thirteenth, fourteenth, and fifteenth days, three pills morning and evening; the sixteenth and following days, four pills in the morning, the same number at noon and in the evening." (P. 75.)

by the eyesight, Dr. B. gravely assures us, is much more definite and precise than that afforded by mere "palpation." We do not deny the truth of the assertion, but, unless we are mistaken, this ocular demonstration will not be often submitted to in this country for mere mucous discharges.

Various "Cases illustrative" are detailed, and we must say with very unnecessary minuteness, to show the advantages of cauterizing the cervix uteri with the nitrates of mercury and silver, &c., in cases of leucorrhœa and gonorrhœa. A few remarks are made on ulcerations of the neck of the womb, which, according to the extensive experience of M. Ricord, are found, in cases where there is profuse and obstinate leucorrhœal discharges, to be seated at the orifice of the os tinæ, in nineteen cases out of twenty.

"These ulcerations of the neck of the uterus, though simple in their nature, and never of themselves degenerating into cancer, may end, however, in the destruction of the organ." (P. 137.)

Dr. B.'s description of simple hypertrophy, chronic inflammation, engorgement of the womb, and the simple scirrhus induration, contains a very fair practical sketch of these important diseases. He takes his "cases illustrative" from Duparcque, Tealier, &c.

The chapter on "Cancer of the Womb" is the best in the work. It contains a very good account of the pathology and symptoms of this fearful malady, and terminates with the details of various cases from different French authors. A brief account is given of Polypi and Fibrous Tumours of the Womb. M. Lisfranc, it appears, sometimes twists off the polypus with a pair of long pincers; but "the preferable operation is excision" with curved scissors.

The volume terminates with some remarks on the medical and surgical treatment of organic diseases of the womb. We are told that "M. Lisfranc counts great success in the amputation of uterine necks." We presume that M. Lisfranc will lose no time in proving to his professional brethren that he has "counted" correctly. We will not at present venture to say more upon this very delicate and painful subject, than that M. Lisfranc is imperatively called upon to answer the *very* serious charges that have recently been brought against his veracity by one of his pupils.*

We cannot close our account of Dr. Balbirnie's work without offering a few comments upon the very extraordinary, and in every point of view very objectionable, style in which it is written. To say nothing of the inaccuracies of the quotations from the learned languages, the extracts which we have quoted are quite sufficient to show that Dr. Balbirnie is still more unhappy in his own; and we fear that the following additional specimens of his diction (not a tithe of what we had marked,) will justify us in saying that his fault is not that of mere carelessness, but of laboured affectation and bad taste. For example: "There is a disease the most common—the scourge of society—most felt in its consequences by the men than by the women who *actually carry it*."—"It is leucorrhœa." (P. 5.)—"The patient being removed from the menstrual period." (P.

* *Maladies de l'Uterus d'après les Leçons Cliniques de M. Lisfranc.* Paris, 1836.—8vo.

131.)—"The *unsuccess* of all that she had been able to do." (P. 166.)—"Her health, which was in the most flourishing state, and accompanied with a superb carnation." (P. 243.)—Every pain and every inflammation are called "lively."—"Discharges of blood from the uterus may occur in women *still menstruated*." (P. 39.)—"We begin with a *spoliative* bleeding of ten or twelve ounces." (P. 163.)—If a thin patient is to be mentioned, "she offers exteriorly a considerable leanness." (P. 246.) "She had grown considerably leaner, which threw out into greater relief her meteorised belly." (P. 171.)—"M. Recamier relished highly the application of leeches." (P. 180.)—"The face was habitually easy to assume colour." (P. 194.) &c. &c. &c.

If Dr. Balbirnie's example be followed of translating literally from the French, the fears of our great lexicographer will be completely realized, and we shall certainly "babble a dialect of France," which, for a long time at least, the mere English reader will not comprehend. In addition to the specimens given above, we may state that Dr. B. rarely speaks of *symptoms*; he prefers "accidents." *Tissues* are always written "tissus." For the mucous membrane of the uterus, &c. he writes "the mucus," adapting the French idiom, and remaining unintelligible to the English reader. "A brush of charpy" is an often-repeated expression. "Vulve" is always preferred to vulva. "Sophy S. *contraried* in her first inclinations." Lastly, we assure Dr. Balbirnie that the term "diet" does not inform the English student whether the patient was allowed as much meat as she could eat, or whether she was confined to bread and water. From almost every page of the book we might take similar specimens of Dr. B.'s very singular style of writing, and of the transference of French idioms into English words, to the destruction of his own language. We seriously, and certainly in a friendly spirit, recommend him to study a little more than he has hitherto done the good models in his own language, before he ventures to the press with the other works which he announces; and we have no doubt, from the industry and professional information he evidently possesses, that he may then offer "an acceptable text-book to students," which the volume we have noticed was intended to be.

ART. XII.

1. *On the Antidotal Treatment of the Epidemic Cholera; with a Sketch of the Physiology of this Disease, as deduced from that of Intermittent Fever.* By JOHN PARKIN, Member of the Royal College of Surgeons, &c.—London, 1836. 8vo. pp. 112.
2. *On the Efficacy of Carbonic Acid Gas in the Diseases of Tropical Climates; with Directions for the Treatment of the Acute and Chronic Stages of Dysentery.* By JOHN PARKIN, &c.—London, 1836. 8vo. pp. 64.

ON several occasions, since the commencement of our labours in this Journal, we have condemned in pretty strong terms the imprudence of young practitioners, of more zeal than discretion, becoming authors before they are masters of any information which it is of importance for the profession to be acquainted with, or even before they have sufficiently

disciplined their minds to comprehend the principles on which the sciences of induction and observation are founded. It is with sincere regret that we are compelled to apply the same strictures to the author of the two works before us, because we see in them indications of much industry, zeal, and philanthropy, which promise well for his future success as a practitioner, and perhaps as a writer. A sense of public duty obliges us to state that we hardly recollect to have seen compressed within the same extent of space so much unfounded hypothesis, gratuitous assumption, and illogical inference, redeemed by so little matter of fact of any value.

In reading the exposition of Mr. Parkin's theory of the development of cholera, we are ever and anon tempted to think that we are perusing some of the speculations of our bookish predecessors before the Baconian philosophy had put a check to the fantasies of learned dreamers, or the discoveries of modern physiology had given some form and consistency to the observations and enquiries of medical men.

The accommodating nature of Mr. Parkin's morbid poison (malaria,) when once introduced into the system, and the no less ready ministration of the fluid (the blood) which transports it so carefully from one place to another at the precise time required by the theory, as well as its capacity to produce all the requisite phenomena, must strike every one, no less that the simplicity of the author, who never for a moment seems to be aware of the necessity of adducing some *proofs* of the existence of his poison within the body, and of its peregrinations and *modus operandi* while there.

The following passages which we extract from the section entitled "Physiology," (qy. Pathology,) will sufficiently indicate the æra of the school to which the author belongs. We ought to observe that some of the passages we are going to quote refer to intermittent fever and not cholera; but, as both are regarded as flowing from the same "almost universal cause" of disease, *malaria*, and as the phenomena in ague are stated to be "similar in every respect to those of cholera asphyxia," the theory is equally applicable to both diseases.

"Taking it for granted, then, that the atmosphere is the vehicle for the introduction of the poison into the system, we may also infer that it first enters the lungs, and then passes on through the left side of the heart into the divisions and subdivisions of the larger arteries, until ultimately it reaches their extreme termination—the capillary vessels. But, although it enters the arterial portion of the circulating system, we cannot suppose that it remains long or to any extent in this situation." . . . "We may therefore conclude, that the accumulation of the poison, after its first introduction into the human frame, and before it produces any specific effect, does not take place in the arterial system. But if not in the arterial branches of the circulating system, where then does the poison accumulate? As there are but three divisions in this circle, if the poison passes into the circulating mass, and if it does not remain in the arterial, we cannot err much in inferring that the accumulation takes place either in the venous or the pulmonic system." . . . "If, then, we suppose that the poison has been propelled into the extreme divisions or subdivisions of the veins, it is allowable to conclude that, from the operation of physical causes, it will be retained in the venous system for a longer period than in the former instance. Having, however, accumulated to a certain extent, and a given interval having elapsed, it may then pass on with the current of blood into the larger branches, until, ultimately, it reaches the two veins which pour their contents into the right side of the heart. From this situation it may be carried forward by the impetus of the sanguineous current to the

lungs; become arrested in the minute capillaries which traverse these organs; escape with the expired air, or enter the pulmonary veins." . . . "Allowing, for the sake of argument, that the poison passes from the arterial into the venous system when the fever ceases, we will now endeavour to ascertain where this substance is situated when the accession commences. Finding that a certain period elapses, after the cessation of the fever, before any morbid phenomena are again produced, it is reasonable to conclude that, during this interval, the extraneous matter has travelled, with the current of venous blood, from the extremities to the centre." . . . "If, therefore, we conceive that the malarious agent, having entered the venous system, has been attracted by the operation of laws which seem to regulate the course of extraneous and other matters, from the extremities to the centre, we must also infer that to its detention in this situation, for a certain period, all the morbid phenomena then witnessed are to be ascribed." (P. 5—9.)

The following conclusions terminate the section.

"1. That the epidemic cholera is produced by the introduction of a poison into the system. 2. That the poison in question existed previously in the atmosphere, and entered the lungs with the air inspired. 3. That the accumulation of the poison takes place in the venous system. 4. That in the stage of collapse, the poison is situated in the capillaries of the lungs; and, in the consecutive fever, in those of the skin, as well as other portions of the extreme terminations of the arterial system." (P. 48.)

Without attempting to confute these hypothetical notions, we will merely remark that the most authentic accounts of the distribution of the blood in the collapsed stage of cholera, (see our review of Dr. Mackintosh's work in the present Number,) are at direct variance with them on the matter of fact.

The following extracts will show that Mr. Parkin's principles of cure are as well grounded and equally philosophical as his theory:—

"Having formed a particular theory respecting the epidemic cholera, based on the chemical researches of Dr. John Davy, who ascertained that the expired air of a patient labouring under this disease was deprived of its due portion of carbonic acid, I was induced to administer the different forms of carbon, for the purpose of confirming or refuting the truth of my doctrine. Although now bound to believe that the theory then formed was, in many respects, an incorrect one, it led at least to a not unimportant conclusion—the conviction on my mind that both carbon and carbonic acid remedied the effects witnessed in the epidemic cholera, at the same time that they removed, by their specific action, the cause also." . . . "A remedy which produces such opposite and different effects, and which has no sensible or direct action in the economy, can only act in one way—that is, by removing the cause of these various phenomena; and as that cause has been proved to be the presence of a poison in the system, the remedy which removes it must neutralize the poison, and must be consequently an antidote in the disease." . . . "One thing at least is certain, that many poisonous substances, more particularly septic ones, have their injurious properties destroyed or rendered inert when combined either with carbon or carbonic acid. Knowing, therefore, the properties of the various forms of carbon, and observing that, when taken by individuals during an attack of cholera, they instantly arrest the course of the disease, we can only conclude that these agents, when thus given, combine with and neutralize the poisonous matter productive of the effects witnessed in the epidemic cholera." (P. 52—59.)

But, after all, the important question is, not whether Mr. Parkin's doctrines are rational or absurd, but whether he has adduced any evidence to show that his particular mode of practice has cured cholera in times past, or offers a probability of curing it in time to come? And we leave the decision of this question to the reader's judgment, after he has considered the means hitherto employed by Mr. Parkin to overcome this giant

malady, and has read the slender catalogue of little facts on which his momentous inferences repose. The essential part of his practice he states to consist in giving the common saline draught (made with half a drachm of carbonate of soda or potass, and a scruple of citric acid,) every hour or every half hour. He says that at the first outset of the attack, "the first dose has always given immediate relief, and the third, at most, removed every symptom," (p. 67;) that, "in the preliminary diarrhœa three or four doses is, in general, sufficient to arrest it," (p. 68;) that, "in the second stage, characterized by rice-water evacuations, the remedy must be given every half hour until the vomiting and purging are entirely arrested," (p. 71;) that, "in the commencement of the stage of collapse, the draught must be given every quarter of an hour, until three or four doses have been taken; then every hour while the purging continues, and every two hours when this has been entirely suspended," (p. 72.) In the two last-mentioned stages, in the more untractable cases, he recommends, in addition to the saline draughts, "pure carbon (charcoal,) either by the mouth or injection," "the inspiration of the gas into the lungs," and even "some stimulant;" the best being "the carbonate of ammonia, either alone or with the acid in effervescence," (p. 71-72.)

These statements imply, either directly or by inference, that Mr. Parkin has cured, and can cure, the Asiatic cholera; and this almost to a certainty by the means indicated. To those who have witnessed any cases of this disease, when epidemic in this or other countries, or who have merely read of the melancholy and hopeless powerlessness of almost all the methods of treatment employed, must assuredly be not a little surprised at Mr. Parkin's confidence and alleged success. Let us see what is the evidence adduced in support of his statements. This is given in the Appendix, and consists partly of cases detailed by Mr. Parkin and others, and partly of fragments of reports from others. Eleven cases are given in all; eight observed by the author; two reported in the *Lancet*, in 1832, by Mr. Radcliffe, and one treated by Dr. Parkin, of Woolwich, (eight in England, three in Spain.) The majority of these cases were evidently cases of simple diarrhœa, a few seem to have been cases of slight cholera, a few were anomalous, and one of these evidently a case of *fright*. All these cases but one were cured by the saline draughts, some almost instantaneously, all very speedily. The excepted case, that of Dr. Parkin, is represented as "cholera in its severest form," "although no vomiting or purging was observed previous to the attack;" and this was cured instantaneously by a single draught of brisk bottled porter!

The second class of documents consists of short fragments of letters and reports from three or four Spanish physicians, who, during the prevalence of the epidemic cholera in Spain, administered the saline draughts, by the recommendation of Mr. Parkin. It is to be regretted that no statistical details are given by these gentlemen, in confirmation of their opinions, which certainly are most strong in favour of the draughts. One says, "it is a specific remedy for the cure of the Asiatic cholera;" another, that it "is a chemical agent which positively neutralizes the morbid poison of cholera;" a third, that it cures "as by enchantment," that it "acts miraculously."

The most striking results seem to have been obtained at Mataro, where

the remedy was employed by all the practitioners of the place. Mr. Parkin, who unfortunately has no positive data respecting the epidemic in this town, says, however, that he "understood" that the number affected was upwards of a thousand, and the deaths about sixty.

It is obvious that Mr. Parkin is far from being justified by the result of his own cases, in pronouncing effervescing saline draughts to be the antidote of cholera; and, in reference to the Spanish evidence, in the absence of specific documents, and with the ample experience we had in this country of the *extreme difference* of the epidemic in different places, is it not infinitely more probable that the particular epidemic treated with such happy results by the Spanish physicians, was one naturally mild and tractable, one that would have yielded to the remedial powers of nature, than that the terrible cholera, which in many parts of this country, and in some parts of Spain, produced such havoc, could have been subdued by a few saline draughts? It is impossible to come to any other conclusion. At the same time we are disposed to admit that, in the present state of our knowledge, or rather ignorance, of the pathology of this terrible disease, and in our utter unacquaintance with any means proved to be capable of arresting its progress when manifesting itself in its severe forms, we would much rather trust to the effervescing draughts of Mr. Parkin,* or the cold water of Dr. Shute, than to agents of more potent influence on the animal economy.

In his second Work, Mr. Parkin extends his theory and his antidotal treatment to the yellow fever and dysentery of tropical climates, with the same unction of confidence in their verity and power, and on equally valid grounds. The only facts, however, adduced in support of his doctrines and practice are about a dozen cases of *ague*, and a smaller number of cases of slight dysentery, or diarrhœa, in Spain and England! The cases of ague certainly got well under the use of the saline draughts, and some of them so speedily, and after the failure of other apparently more effective treatment, that we must either admit the power of the remedy in such cases, or find an explanation of the cure in some concomitant circumstances not stated in the documents. We therefore recommend a trial of the practice in our marshy districts. We fear, however, it will be found that the saline draughts are but a feeble substitute for quinine. At any rate, even admitting that they can cure an ague, what warrant have we that they shall cure yellow fever or tropical dysentery? Alas, none; while all reason, and, what is more, all experience, is against the belief that they should do so. Indeed, we feel assured that, when Mr. Parkin has had opportunities—as we have had—of treating the real malignant yellow fever of the West Indies, and the real Asiatic cholera, he will painfully prove the utter powerlessness of his antidote, and look upon his former confidence in it as one of those happy dreams of generous youth which time and the actual world so painfully dissipate.

* Mr. Parkin is, of course, not the individual who first employed this remedy in cholera, it being the ordinary prescription in most cases of gastric irritation whencesoever arising. In a paper in the *Med. Gazette*, August 25, 1832, Dr. Stevens says "when the stomach is irritable the saline draughts are of great value: . . . this given frequently lessens the irritation, and does more good than any other remedy that I have seen tried in those cases where the stomach is so irritable that it cannot retain the stronger salts."

ART. XIII.

1. *Zur Diagnostik der Lungen und Herzkrankheiten mittelst physikalischer Zeichen: mit besonderer Berücksichtigung der Auscultation und Percussion.* Von Dr. P. J. PHILLIPP, pract. Aerzte in Berlin.—Berlin, 1836.
2. *On the Diagnosis of Diseases of the Lungs and Heart by Means of Physical Signs; more especially those derived from Auscultation and Percussion.* By Dr. P. J. PHILLIPP, Physician in Berlin.—Berlin, 1836. 8vo. pp. 358.
3. *On the Diagnosis of Diseases of the Chest; based upon the Comparison of their Physical and General Signs.* By W. W. GERHARD, M.D., Physician to the Blockley Hospital; Lecturer in the Philadelphia Medical Association, &c.—Philadelphia, 1836. 8vo. pp. 183.
4. *A Bedside Manual of Physical Diagnosis, applied to Diseases of the Lungs, Pleuræ, Heart, Vessels, Abdominal Viscera, and Uterus.* By CHARLES COWAN, M.D. P. and E. &c.—London, 1836. 18mo. pp. 58.
5. *Anviisning til at kjende Lunge, og Hierte, Sygdomme ved Percussion og middelbar Auscultation.* Ved Dr. Med. S. TRIER, &c.—Kjöbenhavn. 1830.
6. *A Guide to the Diagnosis of Diseases of the Lungs and Heart, by means of Percussion and Mediate Auscultation.* By S. TRIER, M.D.—Copenhagen, 1830. 8vo. pp. 121.

It will not be expected by our readers that we should, on the present occasion, enter upon the general subject of the physical diagnosis of diseases of the chest, having so recently had occasion to do so in our notice of M. Raciborski's Manual. We are, however, anxious to call the attention of our readers to the works here enumerated, not merely on account of their individual merits, but because they prove, in a very satisfactory manner, the progressive advance throughout all the nations of the earth of the knowledge of the greatest single improvement which has ever enriched practical medicine. It is creditable to this country that the first translation of the immortal work of Laennec was into English, and that, next to France, England has always taken the lead as well in the practice as in the study and furtherance of the knowledge of Auscultation. This is proved by the numerous elementary works on the subject published in this country, which, until the last year, were the only good Manuals for the student to be found in any language: and, indeed, after all the works that have recently appeared, including those at the head of this notice, we are disposed to regard Dr. Williams's *Rational Exposition*, as remodelled in the edition of last year, as still the best practical introduction to the knowledge and practice of auscultation. It is somewhat singular, notwithstanding the early publication of Laennec's discoveries in Germany, that the physicians in that country seem to have been among the last to admit their importance, or to apply them to practice; and, although the literary activity of the nation has furnished the medical profession with two translations of the *Auscultation Mediate*,—one, of the first edition, in 1822, and another of the remodelled work in 1832,—and also translations of the Treatise of Piorry and of Collin's Manual, it appears from Dr. Phillipp's Treatise that the actual practice

of the new methods of diagnosis is still neglected in an extraordinary manner. "Our private practitioners (says Dr. Phillipp,) almost blush to apply the ear to the chest: in doing so, they make as great preparation as if they were going to perform a bloody operation, and, by their awkward proceeding, excite in the patient a distrust of the value of the method of exploration. In the hospitals and clinics, the physician contents himself with a hurried examination amid the surrounding bustle, paying no further attention to the results thus obtained, or rather obtaining no results to be attended to." (*Pref.* p. vi.)

We are happy, however, to state that Dr. Phillipp's work is one well calculated to alter this state of things; as it is written in the spirit best calculated to find favour in the eyes of his countrymen, being full of matter to overflowing, elaborate in its arrangement, minute in its details, and withal not without a spice of the intellectual enthusiasm which the Germans prize so highly. Indeed, we regard the treatise as excellent in every respect; and, were it not that we already possess the first-rate work of Dr. Williams, already alluded to, and have had so recently introduced into our literature the *Manual of Raciborski*, and the work by Dr. Gerhard, which we shall immediately notice, we would recommend the translation of Dr. Phillipp's work to some of our young friends. It is in every respect superior to Raciborski's volume, which, we are sorry to say, has lost rather than gained by being put into an English dress.

We had marked many passages in Dr. P.'s work, which had struck us as either novel or as placing the subject in a particularly clear point of view, but want of room obliges us to pass them over. We give the following statement of the relative advantages and disadvantages of mediate percussion on the *fingers* and on the *pleximeter*, as an example of the author's manner, and as containing a pretty full statement of all that can be said on both sides.

"The advocates for percussion on the finger adduce the following arguments against the employment of the artificial pleximeter:—1. The sound of the pleximeter itself modifies, in a certain degree, the normal sound of the parts to be percussed; an objection which does not apply to the finger, which consists of substances analogous to those on which it rests. 2. It is difficult, particularly in thin subjects, to adjust the pleximeter to the intercostal spaces, while the finger can be fitted to the hollows with the greatest facility. 3. The level surface of the pleximeter finds few corresponding points on the surface of the chest on which to rest; whereas the flexibility and texture of the finger fit it to every variety of surface. 4. Percussion on the finger causes less pain; and, when the parts are very tender, we may strike on the finger with the flat hand, which is impracticable with the pleximeter.* 5. Percussion on the finger requires less dexterity than that on the pleximeter, burdens the practitioner with no instruments, and inspires the patient with no fear.

"The advocates of the artificial pleximeter maintain—1. That the more homogeneous the medium of percussion the better, and that the instrument exceeds the finger greatly in this respect. 2. That, the more solid the pleximeter, the purer are the sounds elicited from it, and the more in harmony with the subjacent parts; while the soft surface of the finger sins directly against this condition. 3. That, the thinner the pleximeter, the louder and more distinct is the sound deduced from it; but that the finger is not only too thick, but varying in its thickness in different parts. 4. That, the more level the surface to be percussed, so much easier is it to strike perpen-

* We, however, find the production of the sensation of pain enumerated afterwards by Dr. Phillipp as an important sign in some diseases, as in pericarditis and inflammation of the spinal marrow. (P. 23.)

dicularly; that the finger, being convex, is liable to afford deceptive results, particularly if one is not careful to select the centre of the phalanx. 5. That, the wider the surface of the instrument, the impulse is more divided, and is therefore less felt on individual parts: consequently, the superior extent of the pleximeter gives it great advantage in this respect. 6. That the finger is not nearly so easily fixed in its place as the pleximeter.

"But, independently of all these reasons for and against the two methods, daily experience teaches us that while, on the one hand, the pleximeter can never be supplanted by the finger, persons accustomed to the use of the latter will with difficulty bring themselves to employ the former." (P. 28, 29.)

We may add, that although, in our opinion, both are requisite in particular cases, the finger possesses so many obvious advantages, that, as a general means of exploration, it will always obtain the preference.

The work of Dr. GERHARD is on the same plan as that of Dr. Phillipp, but of much less extent. It is also a very excellent Manual, and we can confidently recommend it to the English reader, as containing a concise, but on the whole correct, exposition of the whole subject of the physical diagnosis of pectoral diseases. Like Dr. Phillipp, the author has obtained his knowledge in the great Parisian school,—the only school, indeed, where such knowledge can be readily obtained; and, like him, by the publication of his acquired knowledge, he has conferred a great boon upon the literature of his country. Dr. Gerhard, like his German contemporary, is also evidently an observer of nature for himself; and, if our limits permitted, we could notice several passages in his work which are either original or which represent the subjects in a point of view more worthy of their importance than has been done by other writers. A few of these particulars we will, for the sake of our less experienced readers, briefly advert to.

We have always been anxious to inculcate attention to the physical signs most easily recognized, well knowing how much the difficulty of acquisition bars the way to knowledge of any kind. On this principle, we have constantly advised the student to commence his explorations by the study of the signs afforded by inspection, and to give the preference to percussion over auscultation. For the same reason, we consider the following observations of Dr. Gerhard as important:

"Behind the clavicles, in subjects who are neither very thin nor very corpulent, there are obvious depressions, the internal edge of them being formed by the sternomastoid muscle. These depressions are necessarily a little more evident in thin than in corpulent persons, and are sometimes extreme in those who are reduced to the last degree of emaciation. In very fat subjects there may be a prominence instead of a depression, without corresponding disease of the lungs. Unless the post-clavicular depressions be different on the two sides of the thorax, it is therefore very probable that they indicate no morbid state of the lungs. If one of the hollows be much deeper than the other, we infer that the corresponding portion of the lung has become contracted, and occupies less space than in the natural state; this depression is produced by adhesions between the two surfaces of the pleura, following inflammation of that membrane. As inflammation of the pleura at the summit of the lungs is almost invariably produced by a deposit of tuberculous matter in the pulmonary tissue, an important sign is thus derived from the increase of a post-clavicular depression. If the lungs be distended from dilatation of the vesicles, or if there be an effusion of liquid into the pleura, the post-clavicular hollow on the side affected is nearly effaced, or is sometimes converted into a prominence. In patients of moderate corpulency, there are depressions below the clavicles, corresponding to those above them; they

are increased or diminished under the same circumstances as the post-clavicular spaces, but, from the unyielding nature of the bony walls of the chest, the difference between the two sides cannot be so great. The chest becomes gradually more prominent from the clavicles to the sixth or seventh ribs; the swell is gradual, and is partly caused by the pectoral muscles. It is a little greater on the right than the left side, except just over the region of the heart, where there is frequently a very slight local prominence. The prominence is increased by emphysema of the lungs, or by effusions of liquid into the thorax. The increased prominence is most frequently observed along the margin of the lung, which is the usual seat of emphysema. When the pericardium is distended by liquid, there is a very evident pyriform projection in the region of the heart. If the pleura be the seat of the effusion, the dilatation is more extensive and more equable. A slighter degree of prominence usually accompanies enlargement of the heart." (P. 14.)

Dr. Gerhard in general prefers the finger to the pleximeter, one of the best kinds of which he states to be a piece of common India rubber, about a quarter of an inch thick, and tolerably firm. We differ from Dr. G. when he states it as a general rule that "percussion should be made in such a manner as to produce the greatest possible sound, without giving pain." On the contrary, we are convinced that it often gives the most satisfactory results when made so slight as to be barely perceptible to the ear: in this case, it will often happen that a part which sounds pretty well under a strong impulse returns no sound, while the healthy parts yield a very distinct sound. The following directions are judicious:

"When the forefinger of the left hand is applied to the chest, the percussion may be made upon its palmar or dorsal surface. The sound is clearer, but accompanied by a slight clacking noise when the dorsal surface is percussed; it is purer, more completely hollow, and not less loud when the palmar face is struck. The latter surface is necessarily percussed when the depressions above the clavicles are examined: in that case the convex surface of the finger is readily placed in contact with the concavity of the chest. When the anterior surface of the chest is percussed, it is almost indifferent which surface of the finger is struck. When the back is examined, it is most convenient to strike upon the convex surface of the finger. Whether the pleximeter be the index-finger or a piece of caoutchouc, the fingers should strike against it in the same manner. The four fingers of the right hand should be brought into a line, and the blow be given as quickly as possible with the ends of the fingers, and not with the bulbs. The motion should be performed in the wrist and in the metacarpal joint of the fingers, the arm being perfectly passive, and much care should be taken to withdraw the fingers immediately after they have touched the pleximeter. It is frequently very convenient to use the middle finger only in percussing, if the patient be thin. The tap is then extremely light, but gives a very perfect sound." (P. 21.)

"In young children percussion affords very important signs, which are the more valuable from the comparatively little aid we can receive from the auscultation of such patients. It is best performed by tapping lightly with a single finger along the back. Very little result can be obtained from percussing them on the anterior part of the chest, which is narrow and covered by a layer of fat. Besides, almost all the diseases of the lungs in young children begin at the posterior margin or base. If the child be an infant, it should be laid upon its face, or supported, so that it may lean forwards and make the skin of the back tense." (P. 24.)

We cannot pass over, without a strong expression of dissent, Dr. Gerhard's assertion that auscultation with the naked ear has many advantages over the stethoscope; an opinion, however, in which he is supported by Dr. Phillipp, (p. 39.) In some cases it certainly has advantages; but we are positive that, as a general rule, the reverse is

the truth. Almost the sole advantage of the immediate auscultation seems to be that stated by Dr. Phillipp, viz. "the quickness and facility with which the ear, when once applied, can be moved over the surface, so as at once to save time and comprehend the whole space where sounds are heard, in a single minute ausculting twenty different points." (P. 42.)

The fact mentioned in the last of the two following paragraphs is new to us: we introduce the first merely as necessary to make the second understood.

"When the ear is applied to the chest of a person in good health, a faint rushing sound is heard during the act of inspiration. When this sound is carefully analysed, it will be found to consist of two elements, more or less blended together. The first element, or the blowing sound, is that produced by the air passing through the bronchial tubes. It resembles the sound made in the mouth and fauces, when the air is quickly inhaled. It is heard most distinctly at the root of the lungs, over the trachea, and near the clavicles, especially the right. The second sound is the soft murmur caused by the expansion of the vesicles; it is the best characteristic of a healthy pulmonary tissue. This sound is heard the vesicular murmur, or the vesicular respiration, from its anatomical seat. It is best heard where the tissue of the lungs contains the greatest number of vesicles, and the smallest bronchial tubes; that is, at the base of the lungs, in the axilla, and at their anterior margin." (P. 30.)

"The singular fact that the respiration was always a little blowing at the upper part of the right lung, and not at the left, has been familiar to me for some years. I have recently made a number of dissections of the lungs, to ascertain whether this fact could be explained by their anatomical structure. It will be seen that the bronchi distributed to the upper lobe of the right lung pass nearly in a straight line from the trachea; those proceeding to the left lung make a much longer circuit, in consequence of the curve made by the left bronchium, as it passes beneath the aorta. The length of the principal bronchium, on the left side, is two inches and a half; that of the right is less than an inch and a half, measured from the middle of the bifurcation. The caliber of the bronchia passing to the right lobe is nearly double that of those on the left. There are, therefore, three circumstances which render the respiration more blowing on the right side: 1. Proximity of its bronchial tubes to the trachea. 2. Their straight course. 3. Their greater size." (P. 32.)

Chapter V. "Of the Cough and the Expectoration," is particularly good; but we remark that the author omits to notice a circumstance which we frequently meet with, and which is calculated to mislead the common observer,—viz. the apparent absence of all expectoration in phthisis, on account of the sputa being constantly swallowed by the patient. Chapter X. on Gangrene of the Lungs, and Chapter XI. on Phthisis, are also excellent, and contain as concise and accurate an account of the diagnosis as is anywhere to be found. In the case of phthisis, the author makes practical use of the difference in the normal sounds produced in the two sides of the chest, in consequence of the differing ramification of the bronchi already mentioned.

"Percussion must be made above, upon, and immediately below each clavicle; in these places a very slight deviation from the natural standard may be detected. It should, however, be recollected that a very small difference in favour of the left side does not indicate induration of the right lung, as the summit of the left is naturally a little more sonorous." * * *

"The sound in the right lung of a phthisical patient should not be regarded as morbid, unless the respiration is decidedly blowing; a slight difference, perceptible by an accurate auscultator, does not necessarily indicate disease. But, if the respiration be more blowing at the summit of the left than the right side, there can be no

reasonable doubt that the lung contains tuberculous matter. The same peculiarity of structure which gives rise to a rude respiration on the right side produces a greater resonance of the voice. In the normal state the difference is extremely slight; but, if tubercles be deposited at the summit of both lungs, there will be heard a decided resonance of the voice at a much earlier period on the right than the left side." (P. 105, 106.)

The little work of Dr. COWAN is composed on a different plan, and with much humbler pretensions. The following extract from the preface clearly points out the object the author had in view in composing it; and we are satisfied, from a perusal of its contents, that it is excellently well calculated to fulfil the ends for which it is designed. We recommend it to all young auscultators; and to all, whether young or old, who have the misfortune to own a bad memory for little facts and trivial details.

"The intention of the little volume now presented to the reader is not to rival or replace any of the more extended and didactic treatises upon Auscultation or Percussion, but to furnish him with a summary of the best established signs for the treatment of disease, supposing a previous acquaintance with their individual value and interpretation, as well as with the nature and application of the means best adapted for their detection." * * *

"We feel convinced that the number of students who extensively benefit by the use of the means to which we are referring is very limited, compared with those who possess but a theoretical familiarity with their details; while there is an intermediate class, who evince a practical acquaintance with the subject to a certain extent, but who relinquish their confidence in physical investigation when opposed to the complications which the protean progress of disease so frequently engenders. It is to the last two classes that this little Manual is principally addressed, with the hope of marshalling to their aid, in the moment of practical need, those physical indications which are immediately suited to their wants; and, by fixing the attention upon the more prominent and frequent characteristics of particular diseases, to assist in relieving the mind from the anxious embarrassment which seldom fails to accompany a less definite and visionary knowledge." (*Pref.* p. i. ii.)

We have placed the little work of Dr. TRIER on our list, merely as enabling us to record Denmark among the foreign countries which have added to their national literature the history of the discoveries of Auenbrug, Laennec, and Piorry. This small treatise has been published six years, and, although it contains a faithful digest of the principal facts, it is on too limited a scale to be a sufficient guide for the practitioner. It was produced under the direction of the celebrated Professor Bang, and is founded on the works of Laennec, Piorry, Andral, and Collin. It is a performance highly creditable to the author, and has, we have reason to believe, been very useful to his countrymen.

ART. XIV.

On Insanity; its Nature, Causes, and Cure. By WM. B. NEVILLE, Esq., of Earl's Court House.—London, 1836. 8vo. pp. 192.

ATTACHED to this publication is a Prospectus of Mrs. Bradbury's "Establishment" at Old Brompton, for the recovery of *ladies* labouring under affections of the mind. Prefixed to the Prospectus is the appropriate motto, "*Endeavour to be first in thy calling,*" &c. &c.; and Mrs.

Bradbury addresses herself very seriously to the "friends of the nervously affected," assuring them how much is done at Old Brompton "to enhance a healthy progress of the mind in the valetudinarian," in an establishment which she says induces "an impression of gratification in even the most fastidious." Mrs. Bradbury states that, in addition to Mr. Neville, she has introduced "every adaptation bearing upon the curative feature." Of course, we are reminded that "Old Brompton has been *proverbially* styled by the profession, for many centuries, the Montpelier of England." Then we have medical certificates from numerous fashionable physicians; and following upon these we have a ground plan, and after the ground plan seven lithographic pictures, all displaying the beauties of Brompton, and illustrating the doings at its superlative "Establishment."

Thus garnished, the intention of Mr. Neville's publication is sufficiently evident. It is an elaborate advertisement, prepared to order, and only too well executed, we fear, to have satisfied the taste of the excellent head of the ladies' "establishment." We can assure Mr. Neville that we have in our time refused tempting offers to write for such establishments; but we considered that our talents were, as his own assuredly are, worthy of a better engagement.

In short, Mr. Neville has written a very respectable exercise on madness, which, had it been published alone, might have excited surprise, seeing that it was a little uncalled for, but which comes forth bedizened with a portentous *tail* that disfigures and degrades it. It must have been with a prospective regard to this appendage that Mr. Neville laboured, in his introductory pages, to be learned as to the Jews, and the priestesses of Greece, and the "work" of Aretæus, *De Melancholia*, and the "treatise" of Celsus on the same disease, and of Ælius Aurelianus and Alexander Trallianus; by whose names we are forcibly reminded of Sanconiathon, Manetho, and Berosus, as quoted by the learned cosmogonist, Mr. Jenkinson.

The whole plan of Mr. Neville's book is so eclectic, he picks up opinions on every side with such eagerness, and strings them together so oddly, that we can with difficulty gather what his own opinions are, or whether he has any opinions of his own. He agrees with the phrenological pathologists in ascribing insanity to disorder of some of the faculties admitted by them; but he also agrees with M. Foville, that it occurs in persons who have "the most regular and harmonious configuration of the head imaginable." He maintains the old prejudice that poets are particularly prone to madness, and, forgetting Shakspeare, Milton, Pope, Goldsmith, and Thomson, and Southey, and Wordsworth, refers to the absurd story of Marcus, a citizen of Syracuse, who, "when he had lost his senses, became a fine poet;" and adduces also the instance of poor Nat. Lee. He asserts that "our sweet poet Burns was frequently influenced by *delusions* of the imagination;" an assertion which we believe to be altogether groundless. He declares that Mr. Hogg was mad; that Pascal was hypochondriacal; that "the great novelist and poet, Sir Walter Scott, suffered through the same cause;" and that Sophocles was really insane.

We need hardly say that all this is equally absurd and unjust. But the often-refuted scandal against Sophocles must be revived, and Burns

and Scott must be declared insane, in order to reconcile "the friends of the nervously affected" to insanity, by persuading them into the weak and baseless opinion that the soundest minds are the most prone to unsoundness.

We turn from page to page of the work with the stronger conviction that, although containing much information collected from various authorities, it is still but a work *got up*, without any intention or design, as it seems to us, except that of interesting the public in Mrs. Bradbury's establishment. All the information it contains has already been before the medical public in better form. The practical chapters might at least be expected to contain valuable matter, the result of experience; and we certainly find them less objectionable and better written than the rest. In what relates to the prognosis, however, to say that puerperal mania "almost always ends favorably and *speedily*" is to run the risk of producing painful disappointment; and we equally object to the doctrine that *mania* occurring in young women at the age of puberty is a disorder as transitory as the delirium of a fever; and also that, in the derangement following habitual indulgence in spirituous liquors, the recovery is generally very speedy.

We think the author is perfectly justified in ascribing the defective treatment of insanity to the neglect of all treatment in the greater number of lunatic establishments. If, as it is stated, the total number of recoveries varies from about thirty to fifty per cent.; if the recoveries at the York Retreat are about eighty-nine per cent. in recent cases, and in others fifty; if the results of Dr. Burrows's experience are the same; and if similar results have been produced by the treatment at the Connecticut Retreat, there is much encouragement to persevere in the application of remedial measure, even although we demur to admitting M. Broussais' confident assertion that he can arrest incipient mania with as much certainty as incipient inflammation; an assertion which Mr. Neville does not seem to doubt.

The recommendation not to neglect attending to the mental and moral and physical state of such idiotic children as do not obviously labour under congenital or organic imperfection in the development of the head, we very highly approve of. Few idiots are totally idiotic. We equally approve of the recommendation not to assume that the brain is incapable of recovery, even after long-continued derangement.

In the treatment of insanity, a favorite remedy with Mr. Neville is the carbonate of soda, either given simply or in infusion of bark, calumba, &c., in doses of one, two, three, and even four drachms at a time. The good effects of this medicine on the general health is illustrated by experiments performed upon two monkeys. Both were treated like rational creatures; that is to say, they were kept in a warm room, took little exercise, and lived extremely well; having tea and bread and butter, and a mutton chop or fried bacon, for breakfast; meat for dinner, with vegetables, tarts, beer, wine, and dessert; in the evening tea, and supper at night, and, as we presume, a glass of brandy and water before going to bed. No favour was shown, but both were treated alike, except that to one of them half a drachm of the carbonate of soda was given three times a day, and to the other not any. This went on for six months; at the end of which time, the one to whom the soda was given

was plump and well, whereas the other exhibited every sign of a broken constitution, and was killed for the sake of examination after death. Its muscles were shrunk and pale, the stomach and alimentary canal were congested, the mucous coat of the stomach was thickened, the right lobe of the liver indurated, and the mesenteric glands were much enlarged. The experiment was repeated on two other monkeys, and on two dogs, with the same results. Some *human* cases are added: one of "a gentleman holding a high official situation," and one of a "lady of distinction, whom we" (Mr. Neville,) "visited for some time, along with her ordinary medical attendant, a practitioner of eminence;" but we are content with the cases of the monkeys. The lady of distinction, however, took *an ounce* of the carbonate of soda, in five equal doses, in the course of the four-and-twenty hours, and happily recovered "plumpness and bloom."

We fear Mr. Neville will think we have treated his work with severity. Certainly some passages of it are so sensibly expressed, and some are so miserably affected, that we could imagine he had been tasked with the dressing-up of a common work from another hand; and we need not say that we think his whole performance would have had a better appearance if the Prospectus of Mrs. Bradbury's Establishment and the lithographic ornaments had been omitted.

ART. XV.—THE FOREIGN JOURNALS. No. V.

COLONIAL JOURNALS.

2.—*The Indian Journal of Medical and Physical Science.* Edited by FREDERICK CORBYN, Esq., Garrison Surgeon of Fort William. — Calcutta, 1836.

THIS is a monthly journal, published at Calcutta, and now in extensive circulation throughout the vast extent of our Indian possessions. It was established in January, 1834, by Messrs. J. Grant and J. T. Pearson, Surgeons, and edited by them until June, 1835; when its management was transferred to the present editor. It is got up in the same general style as our own weekly journals, with small print and double columns; but it is considerably larger, being of the royal octavo size, and consisting of at least two sheets and a half, or forty pages. Its price is sixteen rupees per annum, paid in advance, or two rupees the single number. Under the earlier management, this journal consisted for the most part of *Original Communications* from gentlemen resident in India, *Selections* from the British Journals, and *Medical Intelligence*, referring principally to India. The new series has somewhat extended the plan by giving Reviews of books (chiefly of Indian origin,) Hospital Reports, notices of the proceedings in the Calcutta Medical Society, Selections from the European Continental Journals, &c.

We have, we confess, been no less surprised than gratified by the perusal of this journal. We were by no means prepared for so much original matter and so much clever and spirited writing as it contains. It is extremely creditable to the editors, and speaks well for the zeal and intelligence of our medical brethren as a body, in our Indian empire; to

whom this journal must be invaluable. We are much struck by the novelty and importance of many of the original communications on medical subjects, and we are only prevented from enriching our own pages with some of these by want of space. We cannot, however, resist the temptation of extracting a short passage from a series of very clever "Sketches of the Edinburgh Medical Professors," because it does just honour to one of the most enlightened and most estimable men in our profession. We hope it will not be ungratifying to the anonymous writer, nor yet to the subject of his well-merited eulogy, to see a portion of the picture reproduced in our pages:

"I claim the readers' company to the clinical wards of the Infirmary and then to the dark Lecture-room in the University, noted as the class room of old Dr. Andrew Duncan. In the first-mentioned place Dr. Alison is distinguished by the earnest mention he pays to the cases before him—by the pointedness and shrewdness of his professional questions, but, above all, by the kindness and urbanity of his manner to those whose chief claim upon him lies in the benevolence of his own excellent heart. The bland smile and the graciously put question receive in the chambers of the rich their mercenary, their pecuniary reward; but the reward which comes from the sick-bed of wretchedness and from the wards of indigence is, to a man of Dr. Alison's feeling, above all pecuniary valuation. Dr. Alison's treatment of the various diseases which the clinical wards presented, it would be tedious to notice—even if I could at this distant time bear in mind his system of treating every individual disease. It will be sufficient to mention, perhaps, that I think he was less bigoted to theories than his colleagues, treating disease more after symptoms than after names. In fever, this was particularly the case. And how strange it is to think that in a disease like fever, attacking all ages, sexes, temperaments—invading all organs and every texture, one line of practice should be laid down by every man as infallibly correct. It is this dogmatism in medicine that is the stronghold of quackery. Dr. Alison's clinical instruction was highly appreciated by the students. In diseases of the chest, one did well to watch his practice, above all, his diagnostic and prognostic inferences from the stethoscope. I think I have not known a physician whose practice showed more shrewd observative, or more profound professional knowledge. In the Clinical Lecture-room, Dr. Alison was, I think, unrivalled at the time I studied in Edinburgh. His remarks upon the particular case were so apposite; then, his application to it of his experience and of his theoretical knowledge was so convincing and so logical; and with all this flood of learning and practical instruction there was so little attempt at display—so little of mystery in the application of theory to practice—so much of sound sense, and of real utility, that you could not avoid feeling, that you had learnt something worth remembering, and that study and observation applied to the doctrines of medicine by the true logic—the induction from facts, must meet with its reward. A sketch of Dr. Alison cannot well be concluded without doing a little more than alluding to his philanthropy. He is a true Samaritan, pouring the oil into many a wound. To speak in plain English, there is not one man in the whole city that does more acts of charity: you will meet him in the very sinks of wretchedness, administering to the sick, expecting but one reward; but that, the greatest to him who can feel it—the approval of his own heart." (1835. No. xviii. p. 208.)

3. *The Jamaica Physical Journal.* Edited by WILLIAM ARNOLD, M.D.
—Kingston, Jamaica, 1836.

WE know not the exact period of the origin of this Journal; the earliest Number which we have seen is dated September, 1834. It was then edited by James Paul, Esq. It will be seen by the title transcribed above that it has now a different editor; and it has also assumed a somewhat different aspect. It is published once in two months, in the usual octavo size, and contains six or seven sheets, or from ninety-six to

110 pages. We are sorry to say that we cannot compliment our brethren in Jamaica on the style in which the work is got up, as both paper and print are bad. The price of each Number is *ten shillings*: this seems high; but the British Colonies have always been remarkable for the depreciated value of money. Ten shillings in Jamaica currency (about 7s.) is probably not worth more than half-a-crown or three shillings in England.

We are happy to be able to speak in high terms of the contents of this Journal; these are, indeed, very creditable to the writers, and speak well for the state of medicine in the island. In the Numbers before us, coming down no further than April, 1836, we observe both medical and surgical papers, which indicate a great degree of science and operative skill. We regret that we cannot lay some of these before our readers in detail. The papers that please us most are those relating to the indigenous remedies and to the endemic diseases of the country and of the negro population. These are less numerous than we could wish; but some now published are very valuable. We trust that the editor's efforts will prove successful in stimulating the zeal of his brethren: if so, we are confident that we shall have to look to this publication for most important additions to our knowledge of the nature and treatment of tropical diseases. We know, by personal observation, that the diseases of the West Indies are very different from those of the East; and we hope that the practitioners of Jamaica will be able to throw as much light on the peculiarities of their endemic and epidemic maladies, as has been done, and as is still being done, by the practitioners of the Indian peninsula in regard to theirs.

From the notices in one of the earlier Numbers of this Journal, we glean that the Colonial Legislature granted a charter of incorporation, in 1833, to a "College of Physicians and Surgeons of Jamaica;" one object of which is to guard the medical profession and the public against the inroads of ignorant and unqualified practitioners. Dr. Bancroft, well known as the learned author of a very clever work on the Yellow Fever, very famous five and twenty years ago, was the president in 1834. We hope ere long to lay before our readers an authentic account of the State of Medicine and the Medical Institutions in this intelligent and very important colony.

AMERICAN JOURNALS.

IN proceeding with our notices of the American Journals, it is impossible, in looking at some of those now on our table, not to be struck with the pregnant proofs afforded by them of the marvellous rapidity and extent of the advance of civilization over regions which, even within our own days, were literally wildernesses, and, if inhabited at all, inhabited only by the rudest savages. If our noblest sympathies are engaged in contemplating the progress of human improvement and human enjoyment over the earth, our feelings of national pride are certainly not unconcerned when we see that in the South, in the East, and particularly in the West, Englishmen and the sons of Englishmen have been and are the main planners and promoters and actors in this great work. Only a few years ago, the very names of the cities where some of the Journals before us are published were hardly known in England; indeed,

not very many years ago the cities themselves were not in existence: and when we consider how much must be done by a new community, how widely it must have spread, and how greatly it must have increased its numbers, before a *medical* Journal can be maintained, or could even be thought of, we need ask for no more convincing token of American aggrandisement in wealth and power and intellectual refinement, than the very existence of these publications. For ourselves, we must confess that we do not contemplate without emotion the springing up, year after year, on all the borders of the United States, of new institutions to instruct and benefit mankind, both physically and morally; and we hail every journal and book which we receive from our brethren of the far West as an affecting proof that our noble profession still keeps pace with the march of human amelioration.

- 5.—*The Western Journal of the Medical and Physical Sciences*. Edited by DANIEL DRAKE, M.D., Professor of Medicine in Cincinnati College, and WM. WOOD, M.D.—*Cincinnati, Ohio*, 1836.

THIS Journal is published quarterly, each Number containing from 150 to 170 pages, and the four constitute one volume, price *three or four* dollars, according as the subscription is paid in advance or at the year's end. It has reached its thirty-sixth Number. It is well printed, and on good paper, and the whole publication is creditable to the editor. Like most of the other American Journals, it contains Original Communications, Reviews and Notices of Books, and Selections from the Journals of Europe and America. It gives a list of "collaborators," amounting to twenty, besides the editors; and most of them from the State of Ohio, or from States with names still less familiar to the English ear, as Indiana, Alabama, Illinois, Tennessee. Many of the articles, both in the Original and Review departments, are valuable, and we regret that the limits of our "Selections" department prevent us from extracting more largely from its pages.—Every now and then we observe in these Journals some little traits which indicate the simplicity and homeliness of the new community. For instance, in the April Number of this Journal, we observe appended to a list of the names of gentlemen who have paid their subscriptions the following note of the publisher's:

"One of the proprietors lost a letter, containing a remittance, a few days since, when he was leaving the post-office. He may yet find it; but, should he not do so, the money will be placed to the credit of the proper person, when further information is received. He remembers the residence of the individual, but has forgotten his name."

6. *The Transylvania Journal of Medicine and the associate Sciences*. Edited by L. P. YANDELL, M.D., Professor of Chemistry in Transylvania University.—*Lexington, Kentucky*, 1836.

THIS is a quarterly Journal, on almost precisely the same plan as the Cincinnati Journal just noticed. It is, however, somewhat larger, both in the size and number of its pages; and the annual volume accordingly costs five instead of three dollars, (in advance.) It has existed nearly the same period as the other Journal, the Number for April, 1836, being the thirty-third. This Journal is announced as "emanating directly from the Transylvania School of Medicine," as being "identified with the pro-

fession in the West," and as "sustained by many of the ablest pens in the country;" and indeed it is but justice to say that it appears to us a very useful publication. The reviews in this, as well as in the Cincinnati Journal, are almost exclusively of works in English, either British or American; and we may remark, that we have observed the notice of works in the French or German language confined, in a great measure, to the Journals of the great Atlantic cities, which have a readier intercourse with foreign nations, and probably contain more writers capable of giving an account of works written in a foreign tongue.

We will thank our brother editors to continue to send us their Journals, in exchange for our own, through the medium of our agents in New York, Baltimore, and Philadelphia: but we must request them to remember that, in England, *books* cannot be sent by post, and that a small parcel sent by the packet across the Atlantic costs a large sum on its delivery in London.

GERMAN JOURNALS.

11.—*Zeitschrift für die Staatsarzneikunde. Herausgegeben von ADOLPH HENKE, Med. et Chir. Doct., Ordentl. öffentl. Lehrer der Therapie, Klinik und Staatsarzneikunde, &c. &c., an der Königl. Bayerischen Universität zu Erlangen, &c.—Erlangen, 1836.*

Journal of Forensic Medicine. Edited by A. HENKE, M.D., Professor of Therapeutics, and of Clinical and Forensic Medicine in the University of Erlangen, &c.

THIS is a well-established and well-conducted journal, creditable at once to its learned editor and to the medical press of Germany. It has been established sixteen years, and has reached its sixty-third number and thirty-second volume. It is published at Erlangen, in quarterly numbers, each containing about fifteen sheets, or 240 pages, forming two volumes annually, of the price of three dollars twelve groschen, (about nine shillings English.) It is printed in the Roman type, but on the ancient whity-brown paper of Germany. We have no complaint to make of this Journal, but of its diffuseness.

The Forensic Journal of Henke consists entirely of original communications, and certainly contains many of great importance, in every department of forensic or state medicine, from the most eminent practitioners. It affords another instance of the high professional rank which is almost universally possessed by the editors of the German Journals. Besides holding the offices named in the title-page, and which we have only given in part, Dr. Henke is the author of numerous and valuable works in many departments of medical science, extending over no less a period than thirty years, viz. from 1806 to 1836.

In our present Number will be found a considerable extract from a recent Number of this work; and, as it must be generally admitted that the subject of Forensic Medicine is too little attended to in this country, we hope to be able, in every future Number, to transfer some portion of its valuable contents to our pages.

PART SECOND.

Bibliographical Notices.

ART. I.—*Essay on the Disorders incident to Literary Men; and on the best Means of preserving their Health. Read before the Royal Society of Literature.* By W. NEWNHAM, Esq.—London, 1836. 8vo. pp. 36.

WE have no hesitation in saying that this little work contains, in our opinion, more matter of real value than all the numerous volumes which have preceded it on the same subject. For the first time, the diseases peculiar to men of letters have been viewed in their true light in this pamphlet, as depending essentially on a disordered state of the organ of the mind, the brain; and the various disorders which have been commonly set down to sedentariness or want of bodily exercise, and other analogous causes, are here traced to their true source, over-exertion of the brain in the elaboration of thought. We have long been convinced,—and the experience of every additional year strengthens the conviction,—that by much the most frequent cause of dyspepsia, in all its forms, is mental disorder,—mental distress, anxiety, irritation, or exhaustion; and we had been led by observation, and we may be allowed to add, by personal experience, to adopt the very same views respecting the prevailing sources of the diseases of literary men, and we would say of men of business generally, which are so admirably developed in the present essay by Mr. Newnham. What had heretofore been treated merely empirically or on false and hypothetical grounds, Mr. Newnham has brought within the domain of rational pathology; and, if there may remain doubts as to some of his explanations of the *modus operandi* of the causes, and as to the exact pathological condition of the parts affected, no impartial enquirer will any more doubt of the brain being the primary seat of the disorders in question, than he will doubt of the lungs being the seat of pneumonia, or the liver of hepatitis.

A great step has been made of late years towards a rational pathology of nervous diseases generally, and what have been commonly termed mental diseases, by the general recognition of the great nervous centres as their site; and it cannot be denied that for much of this improvement we are indebted to the investigations and enquiries of phrenology. Whatever opinions are held respecting the ultimate cause of the mental phenomena, no physiologist now doubts that the brain is their essential seat, and as necessary for their development and manifestation as the stomach is for digestion, or the kidney for the secretion of urine. It is therefore just as reasonable to expect that the organ which is over-exerted in the labours of the study should be the one principally to suffer in the student, as that any organ which is especially exposed to morbid

influences in the artisan should be particularly obnoxious to disease in him. And yet, as we have already hinted, this simple and obvious truth was never clearly and distinctly exposed, in this country at least, before the publication of Mr. Newnham's: certainly it was never submitted to the profession in a form so well calculated to convey just views and to lead to practical results of the greatest importance. In our next Number we shall prosecute the same subject, in noticing the valuable works of Dr. Brigham.

Mr. Newnham lays claim to no originality: still, if it be a merit to collect into one focus the rays of scattered light, and direct them to the clearing up of theoretical difficulties, and to the institution of beneficial practical processes, to that merit our author is certainly entitled. We recommend the work to the particular attention of such of our junior brethren as are hard students; it is fraught with warnings which they will do well to attend to in time; and we recommend it to all who have for their patients the victims of an over-excited and over-tasked brain, whether the field of labour be the study or the counting-house. To such persons their medical attendant can give no more valuable prescription than the perusal of Mr. Newnham's pamphlet, as it cannot fail to come strongly in aid of the only rational treatment to be instituted in such cases,—abatement or entire abandonment of the practices which have produced and still keep up the disease.

The literary execution of this little work is such as might be expected from a gentleman of the acquirements and habits of its author; but we must protest against the use of the word *brainular*, which meets our eye in many pages, and which cannot be defended on any grounds, whether of necessity, etymology, or taste. Unwilling as we are to countenance words of foreign origin where we possess already a good native synonym, the attempt to introduce such a pseudo-English term as the one in question is altogether preposterous, and when we have the word *cerebral*, now for a long time familiarized to us, in the medical language of this country.

ART. II.—*Handbuch der Menschlichen Anatomie. Durchaus nach eigenen untersuchungen, und mit besonderer rücksicht auf das bedurfniss der Studirenden, der Practischen Aerzte und Wundärzte und der Gerichtsärzte verfasst von C. F. T. KRAUSE, M.D., Professor der Anatomie, &c. zu Hannover. I.-II. Abtheilung.—Hannover, 1833, 1836. 8vo. s. 632.*

Manual of Human Anatomy, compiled by C. F. T. KRAUSE, M.D., Professor of Anatomy, &c., from his own Investigations, and with particular Reference to the Wants of the Student, the Physician, Surgeon, and Medical Jurist. First and second Parts.—Hanover, 1833, 1836. 8vo. pp. 632.

WERE this a common Manual of Anatomy, constructed on the usual model of such, by arranging the matter of preceding publications in a new form, without a single original addition, we would pass it over with the hundreds of foreign books which we omit to notice because they contain nothing new or of practical importance. But the work of Dr. Krause is of a different kind. Together with all that was previously known in the descriptive anatomy of the human body, expressed in the ancient

form, and verified by the author's own investigations wherever any doubt existed, this little volume contains much that is placed in new points of view, and not a few things that are actually new. The most remarkable of the latter are the average weights and dimensions of all the organs and parts of the body, which are supplied by the author from his own observation and experiments. He informs us in his Preface that these weights and measurements were taken chiefly from the bodies of healthy individuals, who had come to their death suddenly, by design or accident. Fr. Meckel had previously done a good deal in this way, but the observations of the present author are much more complete. Although it is, of course, impossible to lay down any positive law as to the absolute size and gravity of the different organs, it cannot be denied that a general average³ can be drawn, any more than it can be doubted that the knowledge of such an average must prove very useful in many cases in determining the true condition of parts observed in subjects who have perished of disease. As an example of this mode of estimating the normal condition of organs, we give a part of the statements respecting some of the abdominal viscera, which are found frequently altered in their dimensions and weight by disease.

"*The Liver.* The length of the liver is from 10 to 12 inches;* its breadth, from its acute to its obtuse border, about 7 to $7\frac{3}{4}$ in., near its extremities only 5 in.; its greatest thickness, from the convex to the concave side, is nearer the obtuse than the acute border, and is about $2\frac{1}{2}$ or $2\frac{3}{4}$ in., near the extremities it is considerably thinner. The absolute weight of the liver varies from $4\frac{1}{2}$ to 6 lbs., the mean being about $5\frac{1}{2}$ lbs. The specific gravity is from 1.0654 to 1.0853, giving an average of 1.0721; the solid contents range from $76\frac{2}{3}$ to $98\frac{1}{3}$ cubic in., the average being 88." (P. 508.)

"*The Spleen.* The spleen measures from above below 5 to $5\frac{1}{2}$, from the anterior to the posterior border, 3 to 4, from the outer to the inner surface, $1\frac{1}{4}$ to $1\frac{3}{8}$ inches; its weight varies from 7 to $10\frac{1}{2}$ oz., the average being $8\frac{1}{2}$; the specific gravity is 1.0579 to 1.0625, the mean 1.0606; the solid contents $9\frac{3}{4}$ to 15 cubic in., the average $12\frac{1}{2}$." (P. 519.)

"*The Pancreas.* The pancreas is 7 to 8 in. long; $2\frac{1}{2}$ broad at the larger extremity, and $\frac{3}{4}$ thick; in the middle it is $1\frac{1}{2}$ broad and $\frac{1}{2}$ thick; the lesser extremity is only a little slenderer, and is often a little thicker than the middle portion. The weight is from $2\frac{1}{4}$ to $3\frac{1}{2}$ oz.; the mean specific gravity, 1.0462; and the solid contents from $3\frac{1}{3}$ to $5\frac{1}{3}$ cub. in." (P. 517.)

"*The Kidney.* The length of the kidney is from 4 to $4\frac{1}{2}$ in.; the breadth from 2 to $2\frac{1}{2}$, and in the upper part $2\frac{3}{8}$ in.; the thickness, from the anterior to the posterior surface, is from $1\frac{1}{4}$ to $1\frac{3}{8}$ in. The weight is from 4 to 6 oz. The specific gravity from 1.0492 to 1.0555, the mean 1.0520; the solid contents from $5\frac{2}{3}$ to $9\frac{1}{2}$ cub. in., the average $7\frac{1}{2}$." (P. 522.)

We think this work deserves translation, and would well repay the labour to an industrious student. It is printed in the Roman type, on good paper, and the whole getting-up is creditable to "the trade" of our sister-kingdom of Hanover.

* Almost every state in Germany has a different foot and inch measure. In scientific explanations, the *Rheinländische* measure is generally used, and is, we presume, that adopted by Dr. Krause: in this the foot has twelve inches, and the inch twelve lines; the proportion of the Rhenish to the English foot being as 34 to 35.

ART. III.—*A Discourse on Self-limited Diseases, delivered before the Massachusetts' Medical Society, at their Annual Meeting, May 27, 1835.* By JACOB BIGELOW, M.D., Professor of Materia Medica in Harvard University.—*Boston, 1835.* 8vo. pp. 48.

THERE is nothing which gives us more pleasure, in the course of our editorial duty, than to meet with such frequent instances as come before us of the liberal and philosophical spirit with which medical science is cultivated by the physicians and surgeons of the United States.

This discourse, in itself an illustration of this remark, begins by a brief and graceful allusion to the recent deaths of three valued members of the Society before which it was delivered. The author then proceeds to make some just and sensible observations on the imperfections of the healing art, some of which he attributes "to the apparent fact, that certain morbid processes in the human body have a definite and necessary career, from which they are not to be diverted by any known agents with which it is in our power to oppose them." It is to these that Dr. Bigelow applies the term *self-limited*. For examples he refers to vaccination, varicella, and the salivation produced by mercury: of these he says he knows of no medical practice which can divert them from their course or hasten their termination. Dr. Bigelow also refers to whooping-cough, measles, scarlet fever, small-pox, erysipelas, and (with some exceptions) typhus fever; and he thinks it probable that other examples might be taken from other forms of fever and from the acute inflammations. Epilepsy and angina pectoris are added to the number, but gout is excepted. Other diseases which come on in paroxysms, as mania, asthma when dependent on pulmonary emphysema, gravel, and the symptoms of ascarides, are enumerated under the same head. Metastatic diseases furnish other instances; such as certain cutaneous affections which alternate with irritations of some internal organ; and, above all, acute rheumatism. Structural lesions and pestilential diseases are also alluded to.

It must be confessed that there is sufficient ground for reflections of this nature to cast a gloom over the mind of a medical practitioner: the heads here enumerated comprehend a vast proportion of human maladies; but, on the other hand, Dr. Bigelow very properly reminds us of the many instances, daily witnessed, of pains relieved, spasms controlled, inflammations checked, and diseased associations broken up. He speaks of the great achievements of limiting the ravages of variola and of syphilis; and, if he had thought it necessary, he might have dwelt with justifiable complacency on the extensive benefit derived from medicine in the slighter disturbances of the organs which are termed functional; those, for instance, of the stomach and bowels; as well as on the extensive power possessed of giving relief even in diseases the most incurable.

The proper use to be made of such considerations is, to regard them as inducements to a candid examination of the actual effect of remedial measures in every case; to a careful and zealous employment even of the means of palliation and relief; and to an anxious and industrious search after the means of increasing the powers of medicine. On all these points Dr. Bigelow's discourse contains excellent observations, which bear the impression of much experience, mature reflection, and an enlightened understanding.

ART. IV.—*Medical Study; an introductory Address delivered at the Bristol Medical School, October 1, 1836, at the opening of the Winter Session.* By J. A. SYMONDS, M.D., Physician to the Bristol General Hospital, and Lecturer on the Theory and Practice of Medicine. Bristol, 1836. 8vo. pp. 34.

IF we were called upon to point out one thing which more than any other indicates the great increase and extension of medical knowledge among the members of our profession generally, of late years, we would mention the rise, progress, and present prosperity of the Provincial Schools, and name the many eminent men by whose talents they are supported. Among these schools that of Bristol is not the least conspicuous, and the author of the pamphlet before us is certainly one of the most eminent of the provincial teachers. It is impossible that schools established in places where the population is sufficiently large can fail to succeed, provided those appointed to teach in them are selected solely on account of their knowledge and talents; and, looking to what we know of Provincial Schools, and to the works that have of late years issued from the provincial press, we see no reason to doubt that this, the only true rule of action in such cases, has hitherto generally prevailed in them. We are sure that no one who has read the valuable contributions which the author of the present pamphlet has made to the literature of his profession, will doubt that the proper rule has been deviated from in the case of his appointment.

The introductory lecture now before us is a general exposition of the nature of the objects of medical study, of the best method of attaining these, and of the spirit that should guide the student in pursuing them. There is nothing particularly new in the details, nor indeed could much novelty be expected on such a subject; but every thing is placed in the clearest light and in the most attractive position, while the whole discourse is animated and dignified by those elevated views of the nature and duties of our profession which it is so important to impress on the mind of the student. This is the more important in the present time, when it would seem as if some men were anxious to fix the attention of practitioners on the mere financial part of our profession, to the exclusion of all considerations of higher and holier import. Not so, Dr. Symonds.

“The instructor in medical science” (says he,) “is bound to look beyond his hearers; if his precepts are operative at all, they cannot remain with the individual; they must, by necessity, extend indefinitely; and their ministry must be productive of great happiness or of great misery.” . . . “Our highest aim, however far short of it we may fall, is to fashion you into great instruments of good to mankind; and we regard a medical school, not merely as a place for learning a particular craft or calling, whereby the proficients shall gather to themselves maintenance, riches, fame, or station, according to their several kinds or degrees of ambition; but as an institution from which combatants with disease shall go forth, not as mere mercenaries, but as voluntary and ardent champions of distressed humanity.” (P. 5.)

And again—

“Our emotions, to a certain extent, are in our own power; and there is one which I would earnestly urge you to cultivate: I mean, a profound respect for your profession. Without it, you cannot long be successful. Even charlatans, who have begun with a belief in the absurdity of their pretended arts, have nourished a respect for

them, from finding, that when most deceived themselves, they have been most successful in deceiving others. If this obtains where the system is itself false, how much more likely is it to hold good, when there is a real ground for conviction. Now, to acquire a feeling of reverence, if you are not already in possession of it, I think it can only be necessary to consider, what order of minds have been delightedly engaged in medical pursuits, from the earliest periods; and to observe the actual dominion which has been achieved over maladies, once the plagues of the human race, and the increased value of human life, under the improvements of our art. And I will add, that the pure and lofty aims of our profession, even if it had accomplished nothing, would alone offer sufficient demands on our veneration. Give no ear then to the idle taunts of those out of the profession: and if you find any among its ranks who dare to speak slightly of its deeds, or doubtfully of its powers, you may safely set them down as persons who have not yet learned to avail themselves of its resources, or who have failed in their endeavours; men driven by disappointment into disaffection. Not to expect success in the treatment of disease, is, probably, the surest way of not obtaining it." (P. 28.)

We earnestly recommend this lecture to every medical student.

ART. V.—*An Account of the most-frequented Watering Places on the Continent, and of the Medicinal Application of their Mineral Springs; with Tables of Analysis, and an Appendix on English Mineral Waters.* By EDWIN LEE, Esq. M.R.C.S.—London, 1836. Small 8vo. pp. 232.

THIS little volume is by the author of the work on the Medical Institutions of the Continent, of which we gave an account in our second Number; but, although it bears the same impress of industry and good sense, it is not equal to its predecessor. In the present want, however, of any other book in our language which gives a general account of the continental mineral waters, this little work cannot fail to be serviceable to invalids who travel abroad; and it will likewise be useful as a convenient remembrancer to physicians in this country who may be consulted by their patients on the eve of their departure. It gives a concise, and we doubt not accurate, analysis of all the principal waters, and a brief description of most of the places where they are situated. These analyses and descriptions seem for the most part taken from the local guide-books, and from the pamphlets by the resident physicians on the virtues of their respective springs, which abound so remarkably on the continent. We do not quarrel with the author for availing himself of these sources of information, no doubt the best open to him as a traveller; but we must guard our readers against expecting in the present work any thing like original views, or instructions sufficiently ample and discriminating to enable the patient to direct his own proceedings on arriving at the source to which he may be directed. Even from the guide-books the author might have selected many useful things which he has omitted. He ought certainly to have given more frequently than he has done the usual doses and most ordinary mode of using the different waters.

An English treatise on the general subject of mineral waters, their true medicinal value, their mode of acting on the system, and the proper method of applying them in the proper cases, is yet a desideratum in our literature; and we think that it reflects little credit on the physicians of our various watering places—both in past and present times—that such a work has yet to be written. It is true our literature is not destitute of works of this kind; but we hold it to be altogether destitute

of works worthy of the subject, or fit to come in competition with the many learned and profound treatises on this branch of medicine which exist in other languages, more particularly the German. Indeed, we do not hesitate to say that, taking the profession generally in this country, there is not one branch of therapeutics in which so little is really known as in that which relates to the use of mineral waters. The dominion of the *medicina perturbatrix* formerly almost universally prevalent in our medical schools, taught us to disregard all means which do not manifest their agency by some powerful effect on the system; and the gross views thence derived have led too many of our physicians to look upon the most valuable mineral waters as mere forms of cathartics, and, hence, in almost all cases in which they are employed, to interpose the use of mercurials and other purgatives. Nothing can be more inaccurate than such views, and nothing worse than such practice; and we are disposed to derive from this source the explanation of the fact, that the value of mineral waters, in many chronic diseases, is extremely underrated in this country. We observe, by the date of Mr. Lee's preface, that he has taken up his abode at Cheltenham. May we express a hope that he carries to that fashionable place of resort for patients, a determination to study the medicinal action of its waters on the principles of a sounder philosophy than seems to have guided most of his predecessors who have published books concerning them? If he does not, we shall say that he has derived less advantage from his visits to the mineral springs of the continent than he might have done.

ART. VI.—*The Practical Anatomy and Elementary Physiology of the Nervous System; designed for the Use of Students in the Dissecting Room.* By F. LE GROS CLARK, Demonstrator of Anatomy in St. Thomas's Hospital.—London, 1836. 8vo. pp. 367.

WE highly approve of the plan which is beginning to be adopted by writers of systematic works on practical anatomy,—we mean that of combining physiological information with descriptive details. This plan not only induces a feeling of pleasure in the mind, and tends to cherish a love and interest for what otherwise would frequently be looked upon with indifference; but it also enables the student to acquire a much more correct idea of the structures described. The work before us is one of the kind we are now alluding to, and, regarded as a whole, is certainly one of the best of its class.

But, in a work of this description, much care ought to be exercised in selecting the kind of physiological opinions introduced into it; particularly when, as in the present instance, it is designed expressly for students. This caution ought more particularly to be attended to where the statements involve theoretical views; and no opinions ought to be given which are not generally received, or which, if new, are not supported by physiological experiments or grounded on positive anatomy. It ought to be remembered that such works, when put into the hands of those who are just commencing the practical study of anatomy, become their textbooks, and almost their only guides in the formation of opinions, and that opinions so acquired, even if they are subsequently proved to be erroneous, are not easily got rid of. Upon this ground we protest, in the

strongest manner, against the introduction into the present work of certain physiological views which are anything but well established, and which we have examined somewhat in detail in another part of our present number; we allude to the views respecting the *excito-motory* system of Dr. Marshall Hall. Mr. Clark is almost the only anatomical writer who appears to have received these ingenious views without some distrust of their correctness; but, at any rate, we are surprised that he should have incorporated them, unconfirmed as they are by any other physiological authority, into a book of descriptive anatomy intended expressly for students. Instead of rendering the knowledge of the nervous system more intelligible to the student, it will rather tend to confound and perplex him.

That part of Mr. Clark's work which is more particularly his own,—we mean the descriptive anatomy of the nervous system,—deserves an unqualified commendation, and cannot fail to be of great use to the student in his dissections of this most difficult part of anatomy. A work devoted exclusively to the descriptive anatomy of the nerves was much wanted for the dissecting-room, and we think that Mr. Clark has executed his task with great ability. The literary portion of the work is highly creditable to his scholarship; and we venture confidently to anticipate, from this specimen of his powers, a career honorable to himself and advantageous to his profession.

ART. VII.—*Aur. Cor. Celsus on Medicine, in eight Books, Latin and English. Translated from L. TARGA's Edition, the words of the Text being arranged in the order of Construction. With explanatory notes, &c., designed to facilitate the Progress of Medical Students.* By ALEXANDER LEE, A.M., Surgeon.—Two vols. 8vo. pp. 318, 350. London, 1831, 1836.

THE title of this book explains its nature and object; and, after examining it, we are willing to admit that it will be very useful to the medical student who is imperfectly skilled in the Latin language, and wishes to improve his acquaintance with it. The “ordo” in the margin, after the manner of the Delphin editions of the Latin classics, cannot fail to afford the most important help to the tender grammarian, while the English translation at the bottom will render his progress at once easy, rapid, and safe. This, however, is the extent of the praise we can bestow on the work; as the translation, although generally conveying the meaning of the original author, cannot be said to be in any respect good. It is not close enough to have the merit and advantage of a strictly literal version; while it is still further removed from every claim to elegance, or even neatness. The author is apparently unqualified to produce anything like a classical English translation of his author; he ought therefore to have adhered to the literal interpretation of him: and it would have been easy for a good English scholar to have given a translation much more literal, and yet very superior in point of style. In this respect, Dr. Collier's translation has greatly the advantage of Mr. Lee's, although the work of the latter will be found much more serviceable to the class of students for whom it is intended.

ART. VIII.—*Illustrations of the Botany, &c. of the Himalayan Mountains and Cashmere.* By T. FORBES ROYLE, Esq. Parts 7, 8, 9.—Pp. 217-331. Folio. London, 1835-6.

THE elaborate details of the press and plates of this work justly commend the author's researches to the attention of the scientific reader; in notices upon medical botany also these numbers are peculiarly rich. They present also another striking feature, exhibiting the infinitely varied supplies of vegetable produce available to the wants of man over all the earth. These addenda to modern works on natural history evince the advanced state to which such investigations have arrived; and we accept the author's observations (pp. 310, 311,) upon the deficiency experienced in existing views of botanical geography, as an earnest of increasing attention to so important a branch of the science. The eighth part contains an interesting article, too concisely written perhaps, upon the attempts made to cultivate the tobacco plant in our eastern colonies. We regret to find the general failure of these attempts confirmed by the author's report; but we must refer the reader to the article itself. We cannot, however, resist noticing the ingenious expedient of the hooqualess mountaineer, who is still able to luxuriate in the fumes of the delicious weed by roasting it in a hole in the ground, (p. 282,) we conclude, "*non sine fistula.*" Plates 85 and 86 deserve more careful colouring.

ART. IX.—*A Practical Demonstration of the Human Skeleton.* By GEORGE ELKINGTON, M.R.C.S., Demonstrator of Anatomy in the Royal School of Medicine and Surgery, Birmingham.—London, 1836. 12mo. pp. 240.

THIS little work is very creditable to its author, yet we cannot think that it was called for by any lack of such helps in the schools. As stated in the preface, it certainly contains a minuter description of the bones than any of the Manuals in common use, and it is inferior to none in accuracy. It wants, no doubt, all the charm of raciness which attaches to some of the older works on the same subject, particularly that of Monro: it wants equally the elegance, perspicuity, and conciseness of the recent production of Dr. Quain; but, to such students as are blest with an industry which tires not, (and we may say that they cannot have a too minute knowledge of osteology,) its copiousness must be both delightful and precious. We remark one defect in it, which, although apparently slight, is not really so; we mean the total want of Latin synonyms. Although it is far from desirable to burden the memory of the student with unnecessary terms, still, to say nothing of the advantage to him in a literary point of view, it is essential that he should be familiar with names which are in such general use, and which he is constantly liable to meet with in his perusal of anatomical and surgical works, particularly of the older and of foreign authors.

ART. X.—*A Medical Vocabulary; or, Explanation of all Names, Synonymes, Terms and Phrases used in Medicine, Surgery, and the relative Branches of Medical Science; giving the correct Derivation and Directions for the proper Pronunciation of each; intended chiefly as a Book of Reference for the Student, but also adapted to general Use.* BY A MEDICAL PRACTITIONER.—Edinburgh, 1836. 12mo. pp. 185.

THE small book with the long title which we have just transcribed, is, without any exception, the best of its kind which we have yet seen. It seems to be the very thing which was wanting for the student; and it will, moreover, be found useful to every medical reader, as no one can carry in his head the whole *technicology* of medicine. We have carefully looked through the pages of this little work, and must say that it is, in our opinion, well conceived and cleverly and carefully executed. We know not who the author is, but he has certainly laid the whole class of medical students under obligations to him. The great advantage which it has over all other works of the kind which we have seen, is in the perfect pertinency and conciseness of the explanations given of the terms. Nothing superfluous is admitted, and we find as few deficiencies as errors, though we have noted a few of both. The derivations of the words are also, on the whole, very correct. If the synonymes were given in all the modern languages (and they are rarely given in any) this vocabulary would go some way towards realizing (as far as England is concerned) the projected work announced in our last number (p. 510) in our review of Dr. Palmer's dictionary. The following is the plan of the vocabulary, as given in the preface: "the name, term, or phrase is set down with marks for its proper pronunciation—the long, short, and acute accents; if a Latin word, simple or compound, its declension is given; next its derivation, and the reason therefor, where the connexion may not be very apparent; then its character, and general and particular meaning, with the corresponding word or term in Latin or English; lastly, its synonyms."

ART. XI.—*The British Medical Almanack for 1837; with Supplement.* Edited by WILLIAM FARR.—Small 8vo. pp. 215. London, 1837.

IN our Journal of last year, we noticed, with just commendation, the volume of this work for 1836. A careful examination of that now before us authorises us to state that the present volume greatly excels its predecessors, excellent as they were, and justifies our recommendation of it to our readers in the strongest terms. The name of the editor is now made public for the first time; and assuredly the great industry, learning, and scientific knowledge displayed in this elaborate work are well calculated to enhance the reputation which he has already acquired by his statistical enquiries. Although the name of *Almanack* is appropriately given to this publication, yet, owing to the long degradation of this title, it is perhaps calculated to give to many an incorrect notion of Mr. Farr's work, which possesses claims to attention very different from those held out by the general class of slight and ephemeral productions so denominated. The great mass of intelligence of every kind contained

in the first part of this little volume, all of it most interesting to the medical reader, is really extraordinary; while some of the statistical articles in the Supplement contain matter of the greatest importance. Our limits will only permit us to give a brief outline of its principal contents. The First Part, besides a Calendar for the year, contains a Medical Chronology, extending from the Arab schools to the discovery of the circulation by Harvey; an account of the Medical Colleges; lists of their officers or members, and of the licentiates admitted at Apothecaries' Hall, the College of Surgeons, and the University of Edinburgh, during the last year; the officers, regulations, and times of meeting, with a table, of the Medical and Scientific Societies; and a comprehensive view of all the Hospitals or Infirmaries and Dispensaries (with the exception of dispensaries in small towns,) in the kingdom. The Supplement contains the following articles:—1. A description of a new Hygrometer by Evaporation, (with a copper engraving,) invented by Dr. Mason. 2. On the History and future Prospects of the Provincial Medical and Surgical Association. 3. On the Statistics of Mortality in England, and the Statistics of Sickness, by T. R. Edmonds, B.A. 4. On Post-mortem Examinations, by the Rev. C. Oxendon. 5. The Weight and Stature of the Human Body at all ages, from M. Quetelet. 6. The Weight of the Brain at different ages, deduced from observations by Dr. Sims. 7. National Statistics: on the Incapacity of the Statistical Officers appointed by the English Government, the Errors of the Official Tables, &c. 8. Tables of Medical Weights all over Europe. 9. New Medicines, including an Epitome of Magendie's Formulary. 10. On the Mortality of the Officers in the English Army, and on the Deaths in different Months in the West Indies, New York, and the west coast of Africa. 11. On the Statistics of the British Hospitals; the best means of collecting their experience, and deducing results; a Table of the Patients admitted, resident, cured, and dying, in all the (sixty-five) British Hospitals and several Dispensaries; with Tables of the Mortality and Term of Treatment in several Hospitals. 12. On the Employment of Percussion and Auscultation in Diseases of the Chest. 13. Acts of Parliament, and miscellaneous articles.

ART. XII.—*Cataract: a familiar Description of its Nature, Symptoms, and ordinary Modes of Treatment, particularly with reference to the System, &c.* By JOHN STEVENSON, Esq. *Second Edition.*—London, 1836. 12mo. pp. 136.

MOST of our readers are familiar with the name, at least, of JOHN HARRISON CURTIS, ESQUIRE, Aurist, it being as little practicable to escape acquaintance with his name as with that of ROBERT WARREN or DR. MORRISON, or of our admirable friend MECHI, of the magic strop; and for precisely the same reason. Many are, however, probably not aware, as the event, though great, is only of recent date, and the organization of his fame in this department not therefore yet complete,—that this distinguished man, in his progress towards the universal dominion of the senses, has added the province of the eye to his ancient kingdom of the ear. So at least we are informed by the author of the work now

before us, who has kindly favoured us, through our publisher, with a copy of his own treatise on one important department of the invaded territory. Mr. Curtis, then, it would appear, has printed a book entitled "On the Physiology and Diseases of the Eye," in which he relates cases, according to the testimony of Mr. Stevenson, attesting the efficacy of a certain "new method of curing cataract without an operation." On this book Mr. Stevenson, as was natural, pounces with vast fury, and tears it all to shreds. The "new method" consists in the application to the eye of a solution of potash, (the strength is not stated, of course,) with which he touches the centre of the cataract from time to time till it disappears.

Mr. Stevenson declares all this to be highly apocryphal and unorthodox, and forthwith proceeds kindly to instruct us respecting "the method devised and carried into extensive operation" by himself, "with almost invariable success." What this method precisely is, is as much a secret as the strength of his rival's solution, and the concealment is just of as much importance in the one case as it is in the other. It would seem, however, that Mr. Stevenson touches the cataract with a needle, while Mr. Curtis touches it with a solution of caustic potash. Stevenson obtains (see page 92,) the patient's confidence, avails himself of a favorable moment, when the patient is not aware of his intention, introduces his instrument into the eye, and completes the operation without exciting a consciousness of what is going on! Not the smallest irritation ensuing, the following day the pupil assumes its natural character, every particle of the cataract having been absorbed during the intermediate night !!

Now this is a feat that even Mr. Curtis, we imagine, cannot outdo, if he can match it. It is really almost, if not altogether, as clever as touching the centre of the cataract "by means of a camel's-hair pencil," which Mr. Curtis has often done, and with an effect "unexpectedly irresistible."

We trust the time is not far distant, if the very publication of such books as we have referred to does not show that it is already arrived, when the diseases of the eye and of the ear shall be either entirely committed to the charge of the scientific and well-educated general surgeon, or, at least, that, if still confided to a class of special practitioners, these shall be men neither ignorant of the principles of medical science, nor disregarding of those which regulate the conduct of honorable men.

ART. XIII.—*An Address delivered at the Fourth Anniversary Meeting of the Medical and Surgical Association, July 20, 1836.* By J. G. CROSSE, Esq., Surgeon to the Norfolk and Norwich Hospital, &c. &c. —*Worcester*, 1836. 8vo.

JUST as we were closing our Notices, the above publication reached us. We have only left ourselves space to say, that it is a very learned and excellent performance, and worthy of taking its place with the Addresses delivered before the Association on former years. We are gratified to notice the rapid and progressive extension of this most excellent Society.

PART THIRD.

Selections from the Foreign Journals.

ANATOMY, PHYSIOLOGY, PATHOLOGY.

On the Theory of Congestion, Hemorrhage, Plethora, and Inflammation.

By Professor NAUMANN, of Bonn.

[WITHOUT pretending to assent to all the views maintained in the following essay, we think it well deserving the attention of our readers, for its own sake, and still more as showing the present opinions of one of the most enlightened physiologists in Germany on the momentous subjects of which it treats.]

I. CONGESTION. When the function of a part increases in activity, its capillary vessels are observed to receive a more ample supply of blood. During the process of digestion, the pale redness of the mucous membrane lining the stomach becomes exchanged for an intensely red colour. This is most conspicuous in children, and least so in old persons. In new-born children, the mucous membrane of the stomach is at all times distinguished by an intenser degree of redness. Digestion being concluded, the increased redness gradually disappears. If the digestive function be too powerfully excited, the repletion of the capillaries becomes still more strongly marked, and continues for a longer period. This phenomenon corresponds to that state wherein the stomach is vulgarly said to be "more sensibly felt." In a precisely similar manner the eye is affected when its functional activity is over excited. The same phenomenon is witnessed with regard to the skin, as a consequence of friction or of the influence of very heated air. It is a fact, then, that the capillary vessels of a part become replenished with blood in the exact ratio in which the nerves of that part have become conductors of *peripheric impulses*.*

When the degree of excitement is over-powerful, or its cause has become a permanent one, the peripheric impulses begin to overbalance the normal equilibrium of sensation; the capillary vessels of the part become more and more distended with blood, and a quantity of the latter fluid, incompatible with health, encumbers the organ. From the earliest period this state has been denominated *symphoresis* or *congestion*. At the present day we speak of "simple vascular irritation," which is likewise termed "active congestion," and is recognized by the following signs: At the seat of congestion increased warmth, together with a sense of pressure or tension, are felt, and the function of the part is somewhat impeded. When these symptoms give way, augmented secretions usually follow, from the organ itself, if it be a secreting one; if not, from one or more of the general organs of secretion, especially from the skin, the kidneys, or the intestines. Well-defined symptoms of active congestion, accompanied by copious though not morbidly augmented secretions, represent that state which has been denominated "turgor vitalis," the phenomena of which are most easily observed on the cutis. Since organs in such a condition (though appearing to contain an excess of blood,) perform their functions with more than common energy; since, moreover, all morbid sensation is absent, this turgor can only be regarded as an attribute of health. There are

* By the term "*peripherical nervous impulse*," the author means to express the influence which is transmitted from the nerves of any particular part of the body to the centres of the nervous system, i. e. the brain and the spinal cord. "*Central nervous impulse*," on the contrary, is meant by him to designate the influence which is conveyed back again from those centres to the nerves of a particular part.—T R.

however, other conditions which lie midway between the above one and active congestion.

When an organ has become the seat of permanent congestion, the symptoms are particularized by a peculiar degree of vacillation; now augmenting, now decreasing; at times unexpectedly vanishing altogether, and then as suddenly reappearing. The more frequently an organ has been affected with congestion, the more easily it is again called forth. If the congestion be very strongly pronounced, the whole circulating apparatus is called upon to participate in its effects; the heart's contractions become more vigorous, the pulse more frequent, full, and developed. Again, if the seat of the congestion be in one of the more important organs, the pulse is rendered still more frequent, perhaps fuller, but always somewhat hard and labouring; the latter being always in proportion to the degree of functional excitement in the affected part. Evanescent congestive phenomena, which manifest themselves now in this, now in that organ, then again in several organs at once, constitute what we understand by the term "orgasm."

The process of active congestion is usually explained as follows: When a part is over-excited, its vitality, if not actually increased, at least becomes quickened. Hence augmented heat; and, as on the latter depends the more rapid consumption of the fluids, an increased afflux of blood is thus called for, which may end in an accumulation in the part affected. It was in this sense that Hippocrates explained congestion.* Essentially agreeing with the above is another theory of congestion, according to which a local excess is assumed in the vegetative or formative process, which demands a more ample supply of vivifying matter, and consequently an accelerated afflux of blood.

That acute pathologist, Stieglitz, has of late years protested against this theory; and, in truth, it is open to numerous objections. If the arteries do convey an increased quantity of blood to a part, wherefore should not the veins carry it away again in an equal proportion? But, if such were the fact, the circulation must be necessarily more rapid at the seat of congestion than in the rest of the body. Even though we granted this to be the case, it would still be impossible therewith to reconcile the phenomena of an augmented *vis formativa* in the part; for experience shows us in every instance where the general circulation is preternaturally accelerated, (thus, in all febrile diseases,) a decrease in the vegetative process, even to emaciation. The question is, however, first to be answered, by the exercise of what power can an individual organ create for itself an increased afflux of blood? The "vis suctionis" or "attractionis" of certain pathologists rests on no better foundation than that of hypothetical fiction; and the assertion is equally gratuitous that, when the sensibility of a part is increased, an interrupted equilibrium of polarity† occasions an augmented afflux of blood. If the cause be referred to a greater irritability or contractile power in the vessels themselves, we must object that those properties are entirely wanting in the capillary vessels, and that the replenishing of the arteries is exclusively dependent upon impulse from the heart. As, however, with every contraction of the left ventricle, the blood is impelled with equal force in every direction and in all the arteries, it becomes an impossibility that congestion in a single part should arise out of a general quickening of the circulation from the central organ. And, even if it could thus originate, an *accumulation* of blood could still not be thereby occasioned, since the blood thus conveyed to the part by accelerated motion would then with equal rapidity be again carried away from the organ.

It remains for us, in our enquiry into the pathogenesis of congestion, to consider the mutual relations betwixt the blood and the nervous medulla. So long as this mutual relation continues in a normal state, no congestion takes place. A morbid predominance of the central nervous influence, (wherein the nerves perform the

* "Caro sauciata subresiccatur et subcalescit, et humiditatem in seipsam a vicinis tum venis tum carnibus trahit; ubi autem attraxerit, intumescit (et inflammatur) et dolorem exhibet."—*De Morb.* lib. i. cap. 2.

† Kreissig and certain other pathologists are wont to compare the blood and the nervous medulla to the two poles of electricity.—*Trn.*

part of conductors from the centre to the periphery,) cannot under any circumstances originate *à centro*. For, according to the laws of organic unity, the central impulse towards individual organs is augmented only *in consequence* of previous excitement to that effect; that is to say, in consequence of the nerves having first conveyed an impression from the periphery to the centre. But, even supposing an impulse affecting an individual organ to originate directly *à centro*, the only result to such organ would be increased nutrition, and therefore renewed energy of its functions. It is far otherwise with regard to the predominance of peripheral nervous influence; for, in proportion as the nerves act as conductors *away from* the capillary vessels, the blood contained in the latter becomes deprived of a portion of the nervous influence indispensable to it. The genuine nutritive or formative process thus proceeds more slowly; the blood flows back in diminished quantity, and therefore accumulates in the capillary vessels, there assuming properties of an irritative nature, proportioned to the deficiency of nervous influence. In a word, congestion (*hyperæmia*) establishes itself. In a measure corresponding with the importance and the size of the organ itself, this morbid state must sooner or later react upon the whole circulation.

The relation of a part to the whole will be greatly elucidated by a glance at the so-termed "passive congestion," which has been likewise called "torpid stagnation of the blood." The latter state is observed solely in organs whose power of resistance has been greatly exhausted, and is particularly liable to arise out of frequent relapses, or out of habitual active congestion. Unquestionably, a constant irritation of the extreme peripheral nerves of one part must ultimately blunt their powers of reaction. The conducting powers of those nerves will become diminished, and thus the equalizing impulse from the centre will be rendered more labouring and less perfect. The capillary vessels of an organ thus abandoned will gradually grow more and more distended, and a permanent state of repletion with blood must ensue.

The phenomenon next to be considered is the morbid distention of the veins which we observe at the seat of congestion. In these vessels circulation is not entirely suspended, though it becomes more and more inert from the arteries conveying to the organ an excess of blood, in relation to its depressed vitality. Since, then, the blood arrives in a very slow course through the intermediate capillaries into the veins, these latter participate less and less in any impulse from the heart. The blood thus accumulates in and distends those torpid, unresisting channels, through which its progression can only be effected by a mechanical repletion or a species of overflowing, so to term it. By this lingering of the blood in the veins, however, the depletion of the capillaries must necessarily be greatly impeded. Hence nutrition rapidly declines in the part, although the latter may be absolutely gorged with blood. At the same time, in proportion to the degree of loss of power in the nutritive process, fluids of a lesser degree of vitality, or even with properties altogether foreign to the part, will accumulate in the interstices.

Passive congestion occurs most readily in organs which, notwithstanding a perfect connexion between their arteries and veins, at the same time possess few or no nerves; for in such organs the blood only derives a portion of nervous influence indirectly through the anastomoses of the capillary vessels.

II. HEMORRHAGE. With congestion, hemorrhage is intimately connected. The latter may, with equal propriety, be divided into active and passive.

1. *Hemorrhage with Irritation*. This commonly occurs after active congestion has become more or less habitual, without, however, having yet assumed the character of passive congestion. Organs in such a state always evince more or less of irritation, whilst their capillary vessels are day by day becoming more relaxed. The hemorrhage of which we now speak proceeds exclusively from mucous membranes, therefore from secreting organs. Such surfaces are liable to be directly acted upon by the product of secretion itself, or by influences, more strictly speaking, external; as, for instance, by the atmospheric air. By means of such influences, the already enfeebled energy of central nervous impulse is still more forcibly counteracted.

Nervous influence is thus gradually withdrawn from the blood circulating

through the capillary vessels, and that fluid becomes consequently much more susceptible of the influence of the morbid stimuli from without. It is, however, evident that the normal process of organic secretion from the capillaries must decline the moment that the character of the fluid those vessels contain can be determined according to the law of exosmosis and endosmosis. The albuminous and fibrinous contents of the blood will be more tenaciously retained by the latter. Hence the coagulable deposit from the blood, that which affords materials for the formation of the capillary vessels, will (for reasons hereafter to be developed,) cease to take place, at least in a perfect manner. The blood must thus escape from its confinement; in other words, capillary hemorrhage must ensue. From the connected state of the capillary system, vessels whose channels are still unimpaired are, in their turn, relieved of their burden by means of the hemorrhage. By this very act, the predominance of peripheric nervous influence is undermined, and central nervous impulse, no longer meeting with the same opposition, gradually resumes its sway. Equilibrium being thus restored between the blood and the nervous medulla, the albuminous deposit is again formed, new capillary vessels organize themselves in place of those which were destroyed, and the hemorrhage ceases of its own accord.

2. *Hemorrhage attended by Exhaustion.* When this occurs, the capillary vessels of the part are in a very high degree distended, and the veins greatly enlarged. The nerves are now scarcely capable of performing their functions of conductors from the centres, and, upon the whole, their conducting power is very inconsiderable; in a word, the vital energy of the organ has become greatly impaired. Here the hemorrhage must necessarily be profuse, because the capillary vessels within a large circumference participate in it. The blood which issues forth is almost always dark coloured, since a great portion of it proceeds from the distended veins. The albuminous deposit takes place slowly from the arterial blood, which latter is probably itself of a degenerate quality. For these reasons, a longer period elapses ere the capillary system has recovered its continuity, and, on the slightest occasion being given, the hemorrhage returns. It is evident that, so long as the capillary vessels maintain a state of perfect integrity, no capillary hemorrhage can occur; for not a single globule of the blood can by any chance escape through the parietes of those vessels.

III. *PLETHORA.* In approaching the question of plethora (Polyæmia,) we find the received ideas on this head likewise subject to many doubts. How is it possible for true plethora to arise? Granting an excess of chyle to be superadded to the sanguineous mass, the latter must have been drawn upon to no slight amount to produce this. For the due elaboration of the chyme, and the separation from it of the chyle, an augmented secretion of saliva, of bile, of the pancreatic juice, &c. is rigidly demanded. What, therefore, the blood would thus gain on the one hand, it would have already lost on the other, since the first acts of hæmatosis can not be imagined to occur without functional excitement of the gastric organs. An absolute excess of blood can, then, scarcely be produced by such means; for, even supposing that more chyle reached the mass of blood than the loss in digested fluids amounted to, the assimilation of such chyle would be proportionately less perfect. The plethora of children proves that in such case the excess would weigh less upon the blood-vessels; that it would rather seek to dispose of itself in nutrition, through the medium of the capillaries. Here, however, being ill adapted for the normal formative process, it could only serve to overload and distend the lymphatic system.

With a view to reconcile the phenomena attendant on plethora with physiology, we may recognize the following forms:

1. *Plethora arteriosa, or Erythrosis.* The blood is here rich in fibrine and in bright red pigment; it coagulates very rapidly, and has an intensely red colour. The capillary system is very strongly developed, as regards space; the complexion is florid. The blood circulates rapidly through the capillary vessels; the renovation of organized matter (nutrition) proceeds vigorously; for which reason the colouring matter becomes proportionably less black during its progress through the capillaries. This state of things in some measure corresponds with what has been

termed the *arterial constitution*, although the latter may be regarded as the one which deviates the least from perfection, as is proved by the great functional capacity of the lungs in those who possess that constitution. So soon as external influences call for an extraordinary reaction of central nervous impulse, the irritative properties of the blood easily acquire the preponderance over the resisting powers of the nervous system. The consequences of this are the phenomena of congestion in several organs at once, more particularly in the lungs and in the brain. In proportion as the frequency and the extent of such congestions increase, the metamorphosis of matter,—that is to say, the true formative process,—must meet with more and more obstacles. Thus may excess in the quantity of the blood in reality occur. As, however, with the increasing accumulation of blood at the origin of the veins the atmospheric influence over that fluid must diminish, erythrosis at length usually degenerates into the next variety of plethora.

2. *Plethora venosa, or Cyanosis.* Here the fibrinous contents of the blood are comparatively far less considerable than its albuminous ones. The blood does not so speedily coagulate, but its colour is intensely red. The complexion is distinguished rather by a blue red than by a bright red colour. The blood is less adapted for the formative process; nutrition and the metamorphosis of substance are more languid than in the former variety. The phenomena of congestion and of orgasm arise the more readily, especially in the abdominal organs. For in these cases nature exerts herself to purify the blood by an extraordinary secretion of bile. Thus the liver, the spleen, and the organs connected with the whole system of the vena portæ, maintain a great degree of functional excitement; a condition so favorable to the development of congestion.

3. *Plethora nervosa.* Here the actual quantity of blood may be smaller than in the state of health; but the nervous system is possessed of so little energy, and its peripheric impulse is so potent, that, on the slightest occasion being afforded, even the normal stimulus of the blood becomes a disturbing agent. This species of irregularity is most frequent in persons of the female sex. Individuals thus affected are commonly distinguished by a vivid, though at the same time delicate, redness of the complexion, which colour however frequently alternates with paleness. In such persons mental emotions are particularly apt to be succeeded by the most violent orgasm, which, by repetition, at length gives rise to permanent congestions. These make frequent and sudden transitions from the uterine system to the thoracic organs, from thence to the brain, and back again.

4. *Plethora vera.* Of this we can distinguish two forms or varieties: *a. Plethora anatomica.* The removal of large members by amputation is apt to be succeeded by true plethora. The process of sanguification has undergone no impairment: hence the same quantity of blood is generated as before, but the space is no longer adequate for its lodgment. A similar result may exhibit itself where a large portion of blood, which had for a long period been excluded from the circulation, is again suddenly restored to the latter; as, for instance, when the spleen rapidly collapses subsequently to great and protracted enlargement of that organ.—*b. Plethora hæmato-poietica.* This form has been till now little attended to, and appears to belong peculiarly to the female sex. The process of sanguification is here more than usually active, whilst, on the contrary, the formative process,—i.e. the nutrition of parts and the natural secretions,—are both tardy and imperfect. There is a great disposition to hemorrhage, especially from the genital organs, the lungs, and the intestinal canal. Copious and repeated hemorrhage is not attended with a proportionate effect in reducing the powers, nor does it exercise any remarkable influence over the natural properties of the blood itself.

IV. INFLAMMATION. It is well known that the phenomena of inflammation may be studied with the greatest degree of accuracy, when artificially provoked in healthy animal tissues endowed with vitality, and which admit, at the same time, of very narrow investigation; as, for instance, in the natatory web of frogs. Here then the following circumstances are of moment. When a powerful and searching irritant begins to exert its sway, we quickly perceive a greater number of globules in the capillary vessels of the part than the moment before. After a short period,

we observe an augmented repletion of these vessels with blood, and consequently a distention thereof. In proportion as this becomes more and more striking, a number of minute capillary vessels, which were not previously witnessed, are seen to develop themselves, and to become replete with red blood. This apparent local development of the capillary system extends in every direction, so that the irritation, in relation to its focus, may be said to radiate from a centre to a circumference. A greater number of globules is compressed together within the capillary vessels, and thus minute channels, containing red blood, everywhere become manifest. The phenomena of active congestion are thus established; the circulation throughout the body is at the same time accelerated. But we must guard ourselves against considering this accelerated movement of the blood as the cause of the local phenomena hitherto described: for, at the seat of incipient inflammation (i. e. in the capillaries,) the motion of the blood cannot have become accelerated, otherwise the accumulation of globules therein could not take place. We have been too long deceived by this concomitant acceleration of the general circulation. The cause of this accompaniment is to be sought for in the effect produced on the general sensibility (the *cœnæsthesis*,) which is inseparable from the experiment, and the result of which necessarily is, that the contractions of the heart succeed each other more rapidly than before. If the frog's heart be previously extirpated, and the great blood-vessels tied, such acceleration of the blood's motion is not observed. But it is superfluous thus to extend the experiment; for the congregating of the globules could still not be explained by accelerated circulation: were the course of the blood at the part threatened with inflammation really accelerated, the respective interspaces between the globules would not be lessened; they would only then glide at shorter intervals over the field of vision: thus their movement alone would be quickened, the interspaces remaining the same as before. Accelerated motion of the blood could never effect augmented repletion and distention of the vessels; otherwise, the same cause in healthy persons must, in like manner, produce inflammation, or, at any rate, congestion. In the latter instances, however, every part of the body receives its due proportion of blood, which only passes through it more rapidly, owing to the more vigorous impulse from the heart. The crowding together of the globules in the capillary vessels, together with the distention and the reddening of the latter, can therefore have no other cause than in an impediment to the reflux of the blood from these vessels.

If, in experimenting as above on the natatory web of the frog, we make use of very powerful local irritation, the transflux of the blood is for a time totally impeded, and that fluid for an instant assumes a retrograde movement; after which, its progressive motion is restored with a degree of impetus. If the irritative stimulus be very violent, this resumption of the progressive movement is, in its turn, instantly followed by an entire stagnation of blood in the capillary vessels. The very same phenomenon is produced by a comparatively very slight irritative stimulus, when the vital energy of the tissue operated upon is greatly reduced. The circulation is again equalized, provided the *vis a tergo* of the arteries is sufficiently powerful to overcome the impediment.

When inflammation is once established, the globules of the blood appear crowded together and motionless in the greatly distended capillary vessels, which must therefore have become impermeable. Inflammation, then, develops itself from the motion of the blood in the capillaries becoming more and more tardy, in consequence of congestion from the increasing accumulation of blood in those vessels, from the more irritative properties with which such blood becomes endowed. At the seat of congestion, circulation still goes on; at the seat of inflammation it is at an end.

The physiological rationale of the development of inflammation is, then, briefly as follows: the blood accumulating gradually in the capillary vessels, owing to the congestion in a part, becomes more and more a source of abnormal irritation to the nervous ramifications. Peripheric nervous influence is thus rendered predominant. On the other hand, the central nervous influence becomes restrained, and for this very reason the organic power of resistance or reaction of the inflamed part is

lessened. The blood becomes deprived of the nervous influence indispensable to it, and the healthy renovation of substance must be almost totally interrupted.* The globules of the blood become more and more crowded together. Owing to the impeded motion of the blood, its fibrine (from its organic affinity to the cruor,) will be most easily held back, whilst the rarer parts of the fluid still find their way into the venous stream. When the increasing stagnation ceases to admit even of this, the serum of the blood at length penetrates the coats of the capillary vessels, and collects itself within the cellular texture, in the shape of what has been called puriform serum. At the same time the fibrine and the globules are retained in close conjunction with each other in the capillary vessels.

So long as the state of simple congestion continues, the fibrine alone is more closely retained by the blood; for its affinity to the red pigment increases in the same proportion as the exercise of nervous influence over the blood becomes diminished. Hence nutrition is rendered more imperfect. As we have already seen, (where the blood is already poor in albuminous and fibrinous matter,) this may be carried to such a point that a plastic deposit is no longer formed by the blood, and that capillary hemorrhage therefore becomes inevitable. When the point of inflammation is reached, a very great excess of albuminous and fibrinous matter must accumulate at the focus of the inflammation. The power, therefore, of the blood in those parts will be the sooner exhausted, and plastic deposits will take place within the capillary vessels themselves; whilst, on the other hand, the remaining serum will be the more actively pressed out of these vessels. The blending together of the globules with the fibrine of the blood is attended with a partial destruction of the former. Hence, the serum occupying the interstices of the cellular tissue is usually tinged with red. The sero-sanguineous infiltration is owing to the partial solution of the envelopes of the globules in lymph; those envelopes constituting the pigmentum. In the parts surrounding the focus of the inflammation, the blood will have acquired much of an irritative property, without partaking of the entire stagnation in its vicinity. This blood will be transmitted to the general circulation, and may impregnate the whole mass of blood with an irritative principle. It is upon this ground that we must account for the phenomenon of symptomatic fever.

Respecting the products of inflammation, I shall be silent. A little investigation will show that the views communicated in the above essay agree with the phenomena of which those views are intended to be explicatory. Of a too vigorous afflux of blood as the proximate cause of inflammation, there can scarcely now be any question.

Rust's Magazin für die gesammte Heilkunde, 45tes Bandes, 3tes Heft.

On Gastroperiodyia. By THOS. A. WISE, M. D.

As I have not seen any account, by European physicians, of a peculiar disease known in this country by the generic term *sool*, I am induced to offer a few remarks on it, in hopes of drawing the attention of the profession to the subject. Gastroperiodyia, or periodical pain in the stomach, often commences with symptoms of indigestion and heartburn, succeeded by a feeling of uneasiness in the scrobiculus cordis, slight and occurring at irregular intervals at first, and lessening gradually while the pain increases in violence. In severer cases, the paroxysm of acute pain generally occurs rather suddenly, when the stomach is empty; sometimes early in the morning, or three or four hours after dinner; increasing slowly when the digestive process is finished, and the activity of abdominal organs has ceased. The excruciating pain is confined to the pit of the stomach, particularly towards the right hypochondrium, although the neighbouring parts often participate, as the muscles of the loins, &c. The pain is of a cutting or gnawing nature; and during the paroxysm is intense, from which the patient generally obtains temporary relief

* The same effects must be produced on organs which are not themselves possessed of nerves; since to those a nervous influence is imparted from neighbouring organs through the medium of the anastomosis in the capillary system.

from pressure. For this purpose he often turns upon his breast and places a hard ball in the pit of the stomach, on which he rests his body, and keeps rolling from side to side. A few days since I ordered an unfortunate person, in this position, to turn round for me to examine him; but such was the agony, that he could not remain without the soothing influence of pressure. As a substitute, he drew from under his clothes a piece of prepared bamboo, an inch in diameter, and a cubit in length, round at one end. This extremity he placed to the pit of the stomach while he rested the other upon the floor; and by bending the body over it, produced such a degree of violent pressure, that at first I feared he would injure himself, and even penetrate the abdomen. He continued in this position while I gained the necessary information of his state, and then returned to his former position, commenced rolling from side to side upon the hard ball, placed in the pit of the stomach, and his low wailing proved how intense were his sufferings and wretchedness. This was an acute form of the disease, and until checked by remedies, it occurred daily about four o'clock, and he continued in dreadful agony the whole night. These paroxysms usually occur at intervals of a day or two, and remain from two hours to as many days, with occasional intervals of ease. During these accessions the state of the pulse, although full, continues slow and natural, and there is not usually more heat of body than is occasioned by the continual movement. In the intermissions the patient feels well, and all the functions are performed as when in perfect health. The tongue is clean, but sometimes parched, appetite good, and alvine secretions healthy and regular. So painful are the paroxysms of this form of the disease, that in the Sanscrit works on medicines it is supposed to be produced by the deadly weapon in the hands of Siva, the destroying power of the *triad*; and so incurable that when it attacks an individual, it is declared that even Siva himself cannot remove it. As a natural conclusion to such reasoning, those afflicted add, what use is there in requesting the assistance of a physician? It frequently happens that the unfortunate individual, in despair of being cured, commits suicide, as the only means left of relieving himself, and of propitiating the anger of the Deity.

I have not been able to obtain any certain evidence of the causes which produce this disease. It appears to be the effect of a combination, individually slight; but when occurring in a peculiar constitution, produces this distressing complaint. I have generally known it to occur in the young and robust male; but without being produced by any particular exposure to the weather, or owing to the quantity or quality of the food. The accession seems oftener to occur when the organs are in a state of inactivity, than from causes increasing the nervous susceptibility. I have not seen it in females, although there is no reason why they should not be also affected; but those of a nervous temperament in general are not so liable to it as might be supposed. The severe pain which occurs in paroxysms, the relief obtained by pressure, and the absence of participation in the circulating system, indicates, with sufficient accuracy, the nervous nature of the disease.

The resemblance of paroxysms of gastroperiodynia to those of tic-douleureux is marked, not only in the nature and severity of the pain, but in the means of relief and the difficulty of curing both diseases. The severe paroxysms of otalgia which so frequently occur in this country, some forms of asthma, colic, &c. form examples of the same species, varying more from the situation and nature of the parts affected, than from any difference in the disease itself. The diet I have found most efficacious in gastroperiodynia is liquid farinaceous food, with boiled milk, which in some cases I have seen diminish the violence of the paroxysms. In strong and plethoric persons blood should be taken from the arm; and may sometimes be repeated generally or locally with advantage. During the paroxysms, pressure, heat, tinctures, ether, peppermint, anodynes, particularly opium, henbane and camphor, are of use in diminishing the severity of the pain. During the intervals the oxyd of zinc and bismuth, carbonate of iron, sulphate of quinine, are all in some cases of use; but it must be acknowledged that the relief is often of a temporary nature; and in some cases diminish, in effect, or even seem to aggravate and prolong the succeeding paroxysm.—*India Journal of Medical Science*, March 1, 1836.

On the Oxide of Bismuth in Yellow Fever. By J. MAGRATH, Esq.

BELIEVING that I have met with a medicine capable of exerting a decidedly beneficial influence in that stage of yellow fever, in which every remedy hitherto used has either totally failed, or at the most has been so very precarious in its effect, as to leave it doubtful whether the patient was indebted to the means employed or to nature alone for the relief obtained, I beg leave to make it known. The remedy I allude to is the oxide of bismuth, and the period of the complaint, the latter part of the first or the commencement of the second stage of the fever, in which sub-acute inflammation of the mucous membrane of the stomach exists, which I believe is always the case previous to the appearance of black vomit. I have successfully employed the remedy in two instances after this last symptom has set in; nevertheless, I fear it will seldom be of use when the discharge of that fluid is at all considerable, as then it is to be apprehended that too great disorganization has taken place; but where inflammatory action has already been actively combated by general and if necessary topical bloodletting, by the use of mercurials, a blister, &c., I cannot assert with confidence that it will, in many instances, save the life of the patients, when none of the other remedies hitherto employed have any chance of succeeding. I have generally been in the habit of combining the carbonate of soda with the bismuth, and giving them in doses of three grains each every second hour as long as I saw an indication for their continuation.—*Jamaica Physical Journal*, March and April, 1836.

On the Cachexia Africanorum. By JOHN FERGUSON, M. D.

THE characteristic symptoms are given to the Cachexia Africanorum either by the deficiency or by the vitiated state of the blood, though I have seen it retain its inflammatory or pyrexial character to the last. The strength is lost; the muscles are soft, the expression of the countenance is dull, and heavy, and desponding, the colour of the skin changes from a deep black to a yellowish brown; it loses its gloss, is dry and cold and flaccid; the nails are white; the hair becomes lighter in colour and dry; the inside of the lips, the gums, the tongue, the palate and pharynx are more or less deprived of their colour, sometimes indeed they are colourless; the palms of the hands are white and dry; the backs of the hands are swollen; the carotids are seen beating violently, and the jugulars are generally pulsating; the heart, even when the body is at rest, sometimes beats with inordinate force and frequency; and, on the least exertion, it assumes a jerking action and strikes forcibly against the chest, and gives out a bellows' sound; the pulse at the same time has a sharp jerking beat and is much accelerated. Walking a few paces brings on dyspnœa or anxiety, a palpitation of the heart that is visible all over the chest and in the epigastrium: rapid and strong pulsation in the carotids; and if the exertion be continued, the dyspnœa is fearfully increased, and a state resembling asphyxia eventually ensues. The eyelids are swollen in the morning and the countenance acquires a transparent appearance. At the close of the disease effusion takes place in the cellular tissue of the skin and in the cavities. There is often considerable œdema of the face from an early period. The belly is tumid, the appetite may be voracious or entirely lost, the digestion is greatly impaired and the motions are light coloured and sometimes earthy. There is often an irresistible desire to eat all kinds of earthy matter, such as decayed limestone, marl, the plaster on walls, and when these cannot be had, the dust on the floor, or the common earth on the ground. Calcareous earth is preferred, and I recollect seeing a considerable excavation on the side of a hill along which passed the public road, where the negroes on the neighbouring properties were in the habit of supplying themselves with an absorbent earth to allay the cravings engendered by the cachexia, or perhaps by other gastric disorders. The blood drawn from a vein looks like muddy claret and water, and when it has stood for some time exposed to the air, the coagulum is found to be loose and of a very dark colour, as if the oxygen of the air did not exert its usual effect upon it.—*Jamaica Physical Journal*, January and February, 1836.

On Milk-Sickness. By Drs. SHELTON, WHITE, and MACANELLY.

[In the Transylvania Journal, for April, 1836, there are copious extracts from three inaugural dissertations, by Drs. Shelton, White, and Macanelly, giving an account of a disease having this name, and which is endemic in the western states of Alabama, Indiana, and Kentucky. It affects both man and beast, but chiefly cattle. It is very imperfectly described in the extracts, probably because familiar to the ordinary readers of the Journal, but many particulars respecting its localities and supposed causes, which cannot fail to interest the medical topographer, are given. The first two extracts give us rather an *idea* of the nature of the disease than a description of it. It is commonly attributed, in cattle, to something eaten or drunken by them; and, in man, to the eating of the flesh of animals who had been affected with the disease.]

"The disease is most severe during the driest season of the year, be that early or late. In a wet season we see but little of it. But one case occurred within our knowledge in the course of the last summer, which was brought on by eating dried beef that had been slaughtered the preceding fall. During that fall some twenty or thirty cases occurred in our county. The season was one of extreme drought, and the cases were most numerous in October and November, when it was at its height. I was called to a woman who had laboured under the disease for about twelve hours. She was found to be quite insensible to all external objects, extremely restless and anxious, pulse about one hundred in the minute, small and weak. She was harassed with perpetual retchings, countenance flushed, and eyes suffused and glassy; bowels constipated, extremities cold. Bleeding was attempted, but no blood could be obtained. Calomel was repeatedly given without effect, and she sunk in a few hours. Her husband was labouring under a milder grade of the same disease, but recovered in a few days. The above case is the only one in my practice in which the brain has been observed to suffer."

"We confess our ignorance of the true cause, but, whatever it may be, the stomach and duodenum appear to be the arena of its action; the liver refuses to furnish its accustomed secretion, and the sympathetic nerves are materially deranged."

"An animal affected with this disease is suddenly seized with rigors, and the whole frame becomes violently agitated; they lose the use of their limbs, and lie helpless in this state of universal tremor, until they expire. It is from this symptom, which is so apparent, that the disease has received the name of *trembles*."

"This disease has not occurred generally in every part of the West, but is confined to particular localities more or less limited. It frequently happens that the inhabitants of two or three adjoining farms will be subject to its attacks, while the surrounding neighbourhood remains entirely exempt. It sometimes takes a wider range, and some of the fairest portions of the West, in consequence of the prevalence of this loathsome disease, must ever remain an uninhabitable waste, unless the cause and remedy can be discovered."

One of the circumstances at once most interesting and most remarkable relating to this disease, is the strict limitation of its course to certain localities.

"In Blount county, Tennessee, there is a locality embracing not more than ten or fifteen acres, on which the disease has been known to originate for nearly, perhaps quite forty years. I was informed by the proprietor of the land that, by watching his cattle for a few years, he was enabled to discover the limits of the poison, and that, by enclosing the infected region in a fence, so as to exclude his live stock from it, the disease ceased to be troublesome, except when an animal got by accident into the enclosure. Another locality exists in the same State, Monroe county, about the size of the first, in which the disease, previously very annoying, was suppressed for eight or nine years by enclosing the seat of the poison. But, during the last few years, the enclosure having decayed and fallen down, so as to admit the ingress of cattle, the disease has again shown itself, and rarely fails to occur in animals that feed long on the spot."

"A third site occurs on the Chattahoochee river, in Georgia. It is an elevated piece of bottom land, containing scarcely more than five acres, shut in by the river and by bluffs on every side. This spot was easily discovered to be the source of

the disease, and was accordingly fenced in securely by the owner, and the evil thus effectually removed."

The following extract would seem, contrary to the common opinion which attributes the disease to the ingestion of poisonous plants, to trace it distinctly to the water drunken by them. It is much to be regretted that no chemical analysis of the suspected springs has been made.

"A respectable farmer informed me, that his cattle had been in the habit of frequenting a pasture ground in company with his neighbour's, on the opposite side of a creek from him. In returning home, his cattle were obliged to cross the creek. For many years not a case of the disease appeared among them, whilst his neighbour lost some forty or fifty head during that time. The animals of the latter did not cross the creek, but drank at another stream. Both herds ranged the same woods, and fed upon the same herbage. It is presumable, therefore, that the disorder was produced by the water; and in confirmation of this opinion, this individual farther stated to me, that suspecting a spring at which his cattle drank to be the origin of the evil, he set to work felling trees around it, so as to exclude his stock from it, and that afterwards they suffered no more with the disease for several years. At length, however, it occurred again, and on examination it was found, that the spring had become accessible from the decay of the timber. The enclosure being repaired, and the cattle shut out from the water, the disease a second time disappeared. Another farmer of respectability told me that a number of his sheep, kept upon a grass lot on account of wolves, had died with the symptoms of milk-sickness. During every season several had died for a series of years, until his flock was nearly destroyed. He at last began to suspect a dripping spring in the *lot*, as the source of the mischief, and accordingly took measures to secure the animals against it, whereupon the disease ceased. In this *lot* it is not probable that there existed any vegetable to which the affection could be attributed."

Prevention of the Disease. "That clover in a green state will, to a great extent, obviate the disease in cattle feeding freely upon it, is a fact not questioned by those who live in milk-sick regions. Other nutritious, succulent vegetables may act in a similar manner, but their efficacy is not so well established. The beneficial effects of clover are shown, by sowing it in ground known to have afforded the milk-sick poison; in which case the disease ceases to appear, especially in cows yielding milk. This experiment has been repeatedly performed in Tennessee and Indiana, and has generally been attended with success. Fields known to have contained the cause of the disorder, have been freed from it in repeated instances, by setting it well in clover; and it has again appeared on the clover being ploughed up, and the field sowed in grain. Thus this plant would appear to possess the power, in some way, of correcting the poison of milk-sickness."

Treatment.—"In the incipient stage of this disease," says Dr. White, "rest, and some aperient medicine will generally ward it off, and restore the patient in a few days to health. For this purpose he has found the sulphate of magnesia superior to all other remedies. Some cases treated by this article alone, where nausea and vomiting had come on, have been relieved. The vomiting, when it supervenes, is best treated by chamomile tea, which allays gastric irritation. After the bowels have been evacuated freely, the patient is considered convalescent, and nothing more is necessary than to keep them soluble. This is best done by the medicine already recommended. Since we adopted this practice, we have not lost a single patient out of some eight or ten."

Dr. Shelton uses emetics and cathartics, and bleeds when the vascular action is high. He remarks, "The most certain and efficacious emetic that can be given, is the euphorbia ipecacuanha in tincture; three ounces of the bruised root are infused in a pint of diluted spirits of wine, of which one or two table-spoonfuls are given every ten minutes until free emesis is induced. The superiority of this medicine over the foreign article seems to consist chiefly in its superior purgative powers, an effect so necessary in this disease. When free vomiting can be thus speedily produced, little else, in most cases, will be requisite than to follow it with a single dose or two of calomel. In more protracted cases the use of mercurial cathartics will be necessary for a longer time."

The Transylvania Journal of Medicine, March, 1836.

*On certain Pathological Changes in the Arterial System.*By M. BIZOT. (*Thesis.*)

THE memoir of M. Bizot on this subject was composed under the auspices of M. Louis, and is the result of the examination of about 160 hearts and arterial systems. The following are the principal conclusions arrived at:—The red colour of the internal membrane of the arteries, without other change, must not be considered as morbid. The alterations which were found are divided into those whose progress was primarily acute, and those primarily chronic. Of the former there is but one, which is an exudation more or less thick, of the appearance and consistence of albumen, rosy or transparent, without colour, and very adherent to the inner membrane. From tracing the transformation of this exudation, M. Bizot believes that the cartilaginous patches have commenced in this manner, and he rejects the opinion of M. Andral, that these patches are developed between the inner and middle membrane. When this albuminous exudation is secreted in isolated patches, its formation does not appear to produce general symptoms; but, if it attacks a large surface, (as the whole aorta, for instance,) formidable symptoms appear, as the author has observed in three cases which he has reported. In these three cases the symptoms were similar: œdema accompanied with febrile disturbance, without symptoms which could be referred to the heart, or the principal organs essential to life; and, on examination, the same lesion was discovered in all, a false membrane lining the whole inner surface of the aorta. This disease is very different from acute aortitis described by MM. Bertin and Bouillaud. The changes of a chronic kind are either common to the whole arterial system, or only affect the arteries of the limbs. The first commences by small, yellowish points, which, developed between the inner and middle membrane, may experience many transformations. According to M. Bizot, the changes described by authors under the names of spots, pustules, abscesses, atheroma, steatoma, &c., have all the same origin, which is a little almost imperceptible spot developed without any trace of inflammation between the most internal coats of the artery, and terminating alike in ulceration. The spots may also be transformed into bony matter, but without passing through the state of cartilage. In the arteries of the limbs, ossification appears to take place in the substance of the middle coat.

*Archives Gen. de Med., Juillet, 1836.**Pathological Observations.* By J. F. H. ALBERS, M.D., of Bonn.

I. Observations on the Par Vagus. In forty-three cases of whooping-cough, which terminated fatally in the first stage, the par vagum exhibited nothing remarkable from its origin to its entrance into the œsophagus. On the other hand, in four individuals of a full and scrofulous habit, the left nerve was found in one, and the right nerve in three instances, slightly reddened externally. This redness, which was always on the side on which the body had lain, was of the same description as that observed in the par vagum of plethoric subjects who had died of fever. In seven cases of fever with intestinal ulceration, (*Dothinenenteritis*), the right nervus vagus was twice, the left once, found reddened from infiltration of blood into the sheath of the nerve. The redness, however, disappeared after the nerve had been steeped in water for some time.

A robust young man, aged twenty-seven, was, on the 14th of July, attacked with violent febrile symptoms; in the evening, difficulty in breathing, anxiety, convulsions, and ultimately delirium, ensued; under which symptoms he died about midnight. On opening the body, the cervical portion of the left nervus vagus was found reddened and softer than usual. Being kept for some hours in cold water, it gradually lost its redness, and assumed a yellowish-white appearance.*

* It is observed, that when plethoric subjects have lain for some time with the head much raised, so that the cervical portion is exposed to pressure, the nerve is frequently found deeply tinged with red, owing merely to cadaverous congestion. In such cases, however, the blood is readily extracted by water, and the natural colour of the nerve returns; which, however, did not happen in the above case.

In fifteen persons who had died of tubercular phthisis, both branches of the nerve appeared unusually strongly developed, and it was remarkable that the right nerve was far more so than the left. In ulcers of the œsophagus and of the trachea, the nerve was found to be entirely obliterated by the ulceration. Tilgen describes a remarkable instance of a species of tumour exhibited by the nervus vagus. A fungus medullaris had formed in the mediastinum, and, by pressure, had disturbed the functions of the trachea and the œsophagus.

II. *Tumours in the Cerebellum.* The observations of Billard, respecting a difference in the crying of children in diseases of the brain, have hitherto received no confirmation from others. In two cases described by the author, the tone, which was only uttered during inspiration, was extraordinarily fine and interrupted, and, in fact, so striking, that in the second case cerebral disease was immediately recognized by the cry alone. In the first case, the symptoms gave rise to suspicion of inflammatory irritation at the base of the brain; in the second, convulsions were the predominant symptoms. Swellings, the size of a nut, were found in one of the hemispheres of the cerebellum, accompanied by a great quantity of serous fluid in the neighbourhood of the cerebellum, the medulla oblongata and spinal marrow.

The change of voice was probably caused by the serous fluid collected about the medulla, as, by that means, injury would accrue to the respiratory nerves, the vagus, glosso-pharyngeus, the accessorius Willisii, and the facialis, which exert a powerful influence over the complicated mechanism of respiration, and consecutively on the brain.

III. *Case of divided Uterus.* The individual, aged forty-six, of a weakly constitution, had never enjoyed good health, and had never had the catamenial discharge: from the time of puberty, however, she had almost every month been seized with lancinating pains in the left hypochondrium, accompanied by vomiting and other pains, which seemed to bear down towards the lower part of the pelvis. In her 26th year, during a violent febrile attack, a slight hemorrhage once occurred from the vagina. At the age of forty-six, she had recourse to medical advice for the pain in the left hypochondrium, which was relieved by a mild antiphlogistic treatment. On dismissing the patient, the author examined the genital parts, and found the external ones in a natural state; the vagina, however, was only an inch in length, and ended in a blind sack. A year afterwards, the patient died of peritonitis.

On examining the internal genital organs, the author found the vagina as above described. About an inch and a half and laterally from it, two oblong bodies were discovered, of the size of a walnut; but not manifesting any actual connexion with the vagina. Laterally, from the upper part of each, a bundle of fibres extended towards another body, which was suspected to be the malformed or degenerated ovarium. The two oblong bodies, which must be regarded as the rudiments of the uterus, contained each a cavity corresponding to their outer forms, and lined with a species of mucous membrane. The substance of the parietes was white, fibrous, and about two lines in thickness; there were no distinct traces of the round ligaments, or of the alæ vespertilionis, these being altogether lost in the cellular masses in which the above parts lay imbedded.

The Medical Association of Toulouse has recorded a similar instance of sacciform vagina, and of probably deficient uterus. Another case is related by Dr. Hohlfeld, of Berlin, of a woman, aged twenty-five, in whom an incision was unsuccessfully made through the imperforated extremity of the vagina.

Kleinert's Repertorium, 1836.

On the Effect of repeated Loss of Blood on the Constitution of the Blood-vessels.
By DR. HERMANN NASSE.

WE have not yet had an opportunity of seeing the original work of Dr. Nasse on the physiology and pathology of the blood, which he has just published, and in which he has consigned the result of observations and experiments carried on by him for no less a period than ten years. The following are some of the principal results ascertained respecting the influence of loss of blood on the state of the fluid, as recorded by Dr. Albers in the Hanoverian Annals.

1. The blood flows from the vein with less force and in a smaller stream.
2. Its temperature is diminished.
3. The blood cools more rapidly in the first minutes.
4. Its colour is brighter.
5. Its specific gravity is diminished.
6. The coagulation takes place sooner.
7. The serum separates frequently more speedily from the clot.
8. The disposition to form the fibrinous coat is increased.
9. The quantity of water is increased.
10. The coagulum is less firm.
11. The specific gravity of the serum is diminished.
12. The powder-like sediment is augmented.
13. The height of the remaining cruor in "whipped" blood is lessened.
14. The blood putrefies more speedily.
15. The fibrinous substance frequently increases, but becomes tenderer, and is more readily decomposed.
16. The quantity of globules is diminished.
17. The quantity of iron is diminished.
18. The albuminous portion of the blood increases somewhat.
19. The quantity of fat in the serum and in the fibrine is increased.

Hannoversche Annalen für die gesammte Heilkunde. B. 1, Heft. 3. 1836.

Communication of Spinal Abscess with the Bronchi. By DR. STANNIUS.

EICHENBROD, aged thirty-three years, about two years ago, after exposure to cold, suffered dragging pains in the back and sides of the chest, frequent feeble rigors, and an almost constant dry short cough. He was harassed by constant sweatings. The pains gradually increased, and the movement of his body became difficult. After very violent pains in the back, two small and not very painful boils formed, which were opened some months before the patient entered the hospital, (October, 1833.) A considerable quantity of pus escaped, and relieved the patient. The openings diminished, but never closed, and there was a daily discharge from them of a purulent fluid. When first seen by Dr. Stannius, the patient was emaciated, troubled with a constant clammy sweat; feverish, particularly towards evening. A cough caused him great pain in the back and sides of the thorax: every movement was laborious. Between the scapula and spine were two small round openings, with somewhat swollen borders. A probe could be passed for several inches, upwards, downwards, and forwards, showing that several sinuses were connected with these openings. A moderately clear and not very consistent fluid escaped from them, in small quantity; sometimes, particularly after violent cough, a large stream of purulent matter poured forth. The thorax was narrow and small; the sound on percussion dull. There was at first but scanty expectoration with the cough; but subsequently it was abundant, and of a muco-purulent character; expectorated without difficulty. Whilst the evacuation by the mouth continued, that by the fistulous openings almost entirely ceased. The expectoration by the mouth became suddenly impeded; the anxiety of the patient and the dyspnoea increased; a violent pain was complained of in the left side of the thorax, and death took place in four days from the date of the cessation of expectoration.

After death were found strong adhesions of the pleuræ of the left side, as well as of both lungs to the diaphragm. Both lungs adhered closely to the back, as did the upper lobe of the right lung, laterally and anteriorly. On the outer and back surface of the right lung was a thick layer of a matter, which was partly solid and almost cartilaginous, and partly cheesy; and which, although in smaller quantity, was found on the posterior surface of the left lung. When the lungs were taken out, on the side of the upper lobe of the right lung were seen two small circular openings, about the circumference of a pea. On its posterior surface were six similar apertures. In their vicinity was a large quantity of the same adhesive matter; which united the opposite surface of the pleuræ in other parts. These openings communicated with the bronchial ramifications. There was one fistulous

aperture on the posterior surface of the upper lobe of the left lung. All the bodies and transverse processes of the vertebra corresponding to the thoracic cavity were, together with the ribs, particularly of the right side, affected with caries. From the two external openings, passing between the tendinous and muscular layers of the back, proceeded fistulæ in various directions, and increasing in number as they approached nearer the spine. These fistulæ were lined by a fine membrane, which was almost entirely covered by a closely adherent, yellowish-brown, clay-coloured, semifluid substance.

The pus which was formed in consequence of the disease of the spine and ribs was then evacuated in two directions; externally, through the openings in the back, and internally into the cavities of the pleuræ, and through the bronchial ramifications.

Wochenschrift für die Gesammte Heilkunde. No. 8. 1836.

PRACTICAL MEDICINE AND THERAPEUTICS.

On Debility in Nervous Diseases, and particularly on the Employment of Tonics in Insanity. By DR. GUISLAIN, chief Physician of the Institution for the Insane at Gand.

It is well known that many symptoms, as pain, convulsions, disordered intellect, &c., may be developed under the influence of debilitating as well as of exciting causes. Thus, nausea and vomiting may be produced both by inflammation of the stomach, and by the constant use of watery and mucilaginous drinks. Prolonged abstinence will bring on acute pains in the stomach, which are symptoms also of inflammation, and ulceration of that organ. Anxiety, palpitation of the heart, cough, and dyspnoea, may be the effect of undue lactation, abstinence, low diet, &c. as well as symptoms of pulmonary inflammation. Hard drinking will cause mania, as well as abstinence from drink in confirmed drunkards. Want of sleep, convulsions and tinnitus aurium, are symptoms of cerebral irritation, and may be brought on by great loss of blood. Frontal headach may depend on inflammation of the meninges, indigestion, repletion; but it may follow great losses of blood, or prolonged fasting.

Among the same class of facts may be included those cases in which medicines differ in their action, although given under circumstances apparently identical. Thus, cardialgia attended with intolerable suffering is aggravated by antiphlogistics, and relieved by sedatives and tonics. Aromatics, volatile oils, ethers, relieve nervous enteralgias, and the greater number of convulsive diseases yield, not to debilitants, but to tonics, and diffusible stimuli. Irritation, produced by one cause, may affect at the same time the nervous and the vascular systems, and may require, on the one hand, remedies to soothe the pain or to arrest the periodical returns of the disease; and, on the other, means calculated to remove the inflammatory condition. This mixed treatment, consisting of the antiphlogistic at first, and the antinervous subsequently, is required in a multitude of cases; as in many cerebral diseases, in affections of the nervous structure in those whose temperament depends on a preponderance of the nervous system, in intermittent fevers, and in acute rheumatism, which so often resists antiphlogistics and yields to narcotics and bark. In the treatment of all mental diseases, it is important to recognize the period at which they pass from an active to a passive state; at this latter period the disease only consists in nervous mobility, which is kept up by the functional habits of the nervous system.

M. Barras has observed that a correct idea cannot be formed of the neuroses, if we confine our observation to their external characters only, as a disease may put on the form of great excitement, although it depend on a state of debility. In treating the insane, the same phenomena which indicate the employment of febrifuge tonics in intermittents may guide us; and these may be referred to a peculiar state of the sanguineous system, marked by paleness of the lips, borders of the eyelids and nostrils; there is also some emaciation, pale urine, pulse frequent but soft,

expression anxious, conjunctiva blueish, even sky-blue. This state of the eye is observed in all feeble and delicate men; it belongs to the nervous temperament; it is marked in women with leucorrhœa, or exhausted by lactation, or hemorrhage, and in the insane who have been exposed to debilitating agents. Thus Dr. G. has observed it constantly in those who refuse to eat.

The frequency of the pulse among the insane is in a direct ratio to the mental disturbance; in mania it is less rapid where there are symptoms of cerebral congestion. In the asthenic period of the disease, its frequency is extreme, and counted with difficulty. After quinine, alone or combined with opium, has been given, the pulse increases in size and diminishes in frequency, and in the same proportion the cerebral disturbance is quieted, the loquacity decreases, sleep returns, and convalescence, when the pulse has regained its healthy type. Sometimes in mania the pulse is extremely slow, and in these cases quinine is less serviceable than where there is great frequency.

The indication for tonics in insanity is not to be exclusively formed from the disease having been preceded by debilitating causes, such as prolonged lactation, bleeding, &c., although they powerfully increase cerebral irritability; for weakness of the nervous system is also independent of these causes, and is most frequently the result of increased action. This active stage, however, cannot be considered as one of pure inflammatory irritation, as the treatment proves. A debilitating regimen and emollients calm pain in the active period of neuroses, and sometimes remove them; but, in the majority of cases, bleedings, leeches, and antiphlogistics only increase morbid irritability, and particularly at an advanced period of the disease; whilst experience proves the benefit of tonics. It is astonishing, as this is the case, that they should not have been more used in mental diseases.

As practitioners have generally withheld tonics from the insane, from a fear of a congestive or inflammatory condition of the brain, Dr. Guislain attempts to distinguish between insanity with congestion and with mere morbid nervous mobility. This latter condition is characterized by an exaggeration of the functions of the brain. There is no moderation in the manifestation of the feelings, passions, will, ideas of such patients; a trifle awakens their suspicion and hatred; they weep and laugh almost at the same time; the mobility of their features is excessive; they are very talkative, their muscular force is prodigious, and all their acts of locomotion, although prompt and violent, are admirably regulated: their memory is acute, and their intellects seem momentarily clear and elevated.

In the congestive condition, the acts of the brain are weakened in proportion to the superabundance of blood in the organ. This fluid oppresses the nervous functions, and at the same time becomes a cause of irritation. This is the case in all inflammations. When the retina is congested, the sight is impaired; whilst, in some nervous affections of the membrane, its functions become more acute. In coryza, the smell is lost, but there is an increased sensibility to odours in many nervous affections attended by debility. In gastritis, there is no appetite, as digestion is impossible; whilst, in the most painful cardialgia, the appetite remains. In the congested state of the brain in insanity, there is a gradual extinction of sensibility: the patient expresses no pain when irritated; he fixes his eyes without seeing, and listens without bearing; he has neither fear nor aversion; neither will nor physical force; his features are immovable; his utterance slow, confused, or impossible; his intellectual powers are equally weakened; there is a progressive extinction of his feelings, memory, and ideas, with inclination to comatose sleep.

Between these two extremes there are mixed states, the patient being at the same time in a state of maniacal excitement, whilst his memory is failing, his walk vacillating, and his muscles slightly convulsed. In all cases the state of the tongue throws light on the diagnosis: whenever there is cerebral congestion, its motions are embarrassed; hence the importance of attending to the pronunciation when there is a question as to the propriety of tonics. In those cases which yield to tonics, the amelioration is gradual, the cure taking place some weeks, or even months, after the remedy has been persisted in even in large doses.

CASE 1. Amelie T., æt. thirty-six, entered the Institution the 27th of March,

1834, in a state of violent mania, characterized by cries, vociferations, and incoherent actions. She was a widow with seven children, the youngest of whom was illegitimate, and only seventeen days old. During her confinement, and for some time previously, she had been subjected to great privations, and she had been much alarmed during parturition: the intellectual disturbance commenced suddenly seventeen days afterwards. From the 27th of March to the 2d of April, she was placed in seclusion, and the mania was marked by complete incoherence of speech, hoarseness, cries, fury, weakness of the pulse, dirty complexion, blue colour of the conjunctiva, and dilatation of the pupils. Dr. Guislain prescribed solitude and a tonic regimen; meat jellies, and twenty grains of sulphate of quinine daily. After eight days of this treatment, there was a sensible improvement; the expression of the eyes became natural, the convulsive state of the features gave way to an expression of good humour; conversation rational, voice weak, pulse frequent.—April 15th. The amelioration is progressive, she sleeps well, and quietly; pupils contracted, cheeks flushed, pulse slow; she complains of her head feeling empty. Owing to a mistake, a relative was admitted, who reproached her, and she became agitated, could not sleep, and fell into a state of melancholy. By great care, substantial food, and decoction of bark she was restored, and quitted the establishment on the 20th of July in perfect health.

CASE 2. A man, æt. sixty, had been an in-patient in an hospital for upwards of a year for an asthmatic affection, when, in June, 1834, he became maniacal, and was placed under the care of Dr. G. Day and night he disturbed the other patients by his loquacity, his cries, and songs; his ideas were completely incoherent. Pulse frequent, small, tremulous; urine clear, features contracted, eyes prominent, sparkling, conjunctiva blue, temperature of the skin diminished. He was ordered to take two drachms of extract of bark daily. This was so successful, that, on the third day, the disturbance of his intellect was removed. The medicine was continued during two months; but, as soon as the cerebral symptoms ceased, the chest became again affected, and he died eight months afterwards, without having experienced any return of mania.

CASE 3. N. D., eighteen years of age, had an attack of mania, which lasted six months. At twenty-two years, the political disturbances again brought it on, and this time it put on an intermittent form, returning every eighteen days, and lasting about a fortnight. The attack began with sadness for a day or two, followed by childish gaiety and constant laughter; and this state increased until his fantastic impulses led him to destroy his clothes and break the furniture. On the tenth or eleventh day, he became drowsy, which state terminated in health. During the lucid intervals, his intellect was perfect, and he was able to attend to business, and to enjoy public amusements. The return of the disease was so regular, that these intervals were never prolonged beyond eighteen days. The disease had lasted four years when Dr. G. was consulted. Bleedings, leeches to the head and arms had been frequently and copiously resorted to, without the least success. He directed two scruples of sulphate of quinine to be taken during each interval, and this was persisted in for four successive months. One grain of extr. opii was taken daily during the same period. This at first diminished the intensity of the attacks without arresting them, but suddenly, in September, 1834, they ceased, and he is now perfectly well.

Several other successful cases are detailed; but Dr. G. observes that he does not recommend quinine as a certain panacea in all instances, as he has employed it many times without benefit. Sometimes there was a tendency towards convalescence, which the bark hastened. In no case did it aggravate the cerebral symptoms, although the doses were very large and long continued. It is astonishing that furious maniacs can take beer, wine, or even brandy, without aggravating their disease; indeed, in some cases there is relief after slight intoxication, and the effect of wine and opium in the mania of drunkards is well known. On the other hand, all those who are practically acquainted with insanity have seen cases aggravated by bleeding; and, notwithstanding this, it is often resorted to with blind confidence. It may be useful to prevent cerebral congestions and disorgani-

zation, and at the commencement it has arrested the disease; but such cases are rare, and, during fifteen years' particular attention to insanity, Dr. G. has not had ten cases of this sort. In the great majority of those who were bled more or less frequently, the symptoms have been aggravated; and, even although bleeding may apparently calm the cerebral irritability, yet generally it renders the disease incurable: even where there is cerebral congestion, it may arrest the tendency to coma, render the step more free, and remove muscular contractions; but does not affect the mental condition, and the intellectual disturbance increases. Dr. G. does not recollect to have cured one patient whose pronunciation was embarrassed, or walk vacillating.

Gazette Med. de Paris, No. 14, *Avril*, 1836.

On the diagnostic Value of the Deformities of the Chest, produced by Diseases of the Thoracic Organs. By M. WOILLEZ. (*Thesis.*)

THE examination and measurement of the thorax of 116 men, in the wards, of M. Louis, have furnished M. Woillez with the materials for this memoir. The following are his principal conclusions:—Frequently the natural projections were similar in form to those resulting from disease. Natural projections are very rare on the front of the right side or on the back of the left side, but they are frequent on the back of the right side and front of the left side; these last two are often found together. In the healthy state, the right side measures more than the left: so that measurement of the chest is of little use in the diagnosis of dilatation of the thorax, unless the patient has been previously measured.

M. Woillez first demonstrates that, as the lung tends incessantly to contract by virtue of its elasticity, the dilatation of the chest can only be produced when this elasticity (or, as he calls it, this concentric force, by which the ribs are kept in contact with the lung,) is destroyed. In pneumonia, although the lung is evidently increased in volume, there is no enlargement of the thorax. This enlargement exists if the hypertrophied lung is sufficiently large, to project from the chest on opening the body. Projection of the chest takes place in almost all cases of emphysema: from what has been said above, this projection is more valuable as a sign on the right side in front. The disappearance of the intercostal space being always pathological, it is a good mark to distinguish these cases from natural projections. In pleurisy, it has been observed by all that the effused liquid does not accumulate inferiorly in the first stage; this our author explains by saying that the concentric force not being destroyed, there is a tendency to a vacuum in every point of the thorax. In the second stage, on the contrary, the elasticity of the lung is destroyed, the fluid accumulates in the lowest part, and, when it is in sufficient quantity, the chest is dilated. M. Woillez next examines the contractions which supervene after the cure of pleurisy, and explains very well the apparent irregularities which are met with. If, for example, the left side does not appear depressed after the cure of pleurisy, with considerable effusion on that side, it is owing to the existence of one of those frequent projections which the contraction has only diminished. The depression of the nipple is a good sign of an old pleurisy; for, in healthy individuals, in whom the nipples are not on the same level, the nipple which is most elevated is generally on the contracted side. Temporary projection of the thorax is a good sign of partial costo-pulmonary pleurisy. In effusions of air into the pleura there will neither be dilatation of the thorax nor compression of the lung, when the exit of the air is as free as its entrance. On the contrary, dilatation of the thorax takes place when the entrance of air into the pleura is easy and its escape difficult, or impossible. Little projections, having a dull sound, which precede aneurismal tumours of the large vessels, are valuable signs. The vaulted elevation, which is of little importance in recognizing hypertrophy of the heart, because it only takes place when the heart is enormous, is very useful in the diagnosis of pericarditis: of thirty-two cases of this disease, observed during four years by M. Louis, this elevation was noticed thirty-one times. M. Woillez says, it cannot be confounded with natural projections, as these never change, whilst those from pericarditis increase and diminish with the effusion.

Archives Gen. de Med. *Juillet*, 1836.

History of a Deaf and Dumb Person; with the Appearances on Dissection.

By Dr. BERGMANN.

A MAN was found hidden in a barn at Reinhausen, in the kingdom of Hanover, in the year 1806. All attempts to make him give, by word or sign, any account of himself, of his former life, abode, or circumstances, were vain. When interrogated, he laughed unmeaningly, or gazed about him fixedly, or uttered unintelligible sounds. He was of the middle size, thin, well made, and about twenty years old. All enquiries respecting him throughout the country having been without result, he was consigned to the workhouse at Celle. Here he lived till his decease, in 1833.

Soon after his arrival at Celle, he manifested signs of intelligence sufficient to prove that neglect and want of education had greatly contributed to render his case intractable. He was mild, good-natured, attentive and docile, obeyed at a sign, was extremely willing, and not unskilful in domestic service. He appeared cheerful and contented, and was very seldom out of temper. He had totally lost the faculty of hearing, and could only utter one or two sounds. However, he contrived to make himself tolerably well understood by gesticulation. Although, during the latter years of his life, his general appearance was healthy, he was still unusually weak, and suffered from shortness of breath. Dr. Bergmann has remarked that the deaf and dumb are peculiarly subject to weakness of the pulmonary organs; which weakness he easily deduces, *à priori*, from the relation of the latter to the organ of hearing, and from the intimate nervous connexion.

The patient died of a fever, with pulmonary symptoms, June 6, 1833.

The abdominal viscera were found, at the post-mortem examination, to be free from disease. In the thoracic there were pathological changes, corresponding to the symptoms manifested during the last years of the patient's life. The brain was in a normal condition, and its different parts exhibited no deviation from their usual structure. The external ear was of a natural conformation, and the meatus externus and membrana tympani presented no unusual appearances; but the membrane which lined the hollow of the tympanum was of a spongy, sarcomatous nature, and that which covered the bones of the internal ear was similarly affected, so that their motion might have been somewhat impeded in consequence. In the hollow of the tympanum of both sides there was a quantity of thickish mucus. A hard concretion, about the size of a mustard-seed, covered the fenestra rotunda on the left side. The semicircular canals were of a natural form, but degenerated internally; they seemed to have contained some fluid, but in very small and insufficient quantity. The thin, transparent lining membranes, (ductus semicirculares Scarpæ,) the ampullæ, and the nerves, could not be distinctly discovered on either side. The defects here were evidently of a nature to have interfered materially with the exercise of the function of the organ. They could not have been affected by the process of examination, for the appearances presented were precisely similar on both sides. The cochlea was found in its usual condition, and appeared to be properly supplied with nerves. Whether the defects visible in the semicircular canals were congenital or the result of disease, it was of course impossible to ascertain.

Dr. Bergmann contrasts with this case one of decided idiotism; that of a dumb girl, whose forehead was flat, head compressed on both sides, face without any expression, mouth constantly open, so that the saliva was always flowing out, look unmeaning, &c. In this case the brain was imperfectly developed, but all the organs of sense were of a natural conformation.

Hannoversche Annalen für die gesammte Heilkunde, B. i. Heft 1. 1836.

Singular Case of Inflammation of the Muscles. By J. A. PETET. (Thesis.)

CASE. A mechanic, about forty years of age, and of nervous temperament, accustomed to work hard, in a damp workshop, at his trade, which required much strength, began to suffer from general lassitude. This forced him to relinquish his occupation, and take to his bed; and shortly afterwards he experienced pains

particularly in his limbs, exasperated by the slightest motion. The general symptoms were trifling; there was but little fever, moderate thirst, and no increase of heat; but he suffered greatly from want of sleep. On admission into the Hospital St. Louis, under the care of M. Biett, there was observed elongated, fusiform swellings in the direction of the length of the limbs, without change of colour or heat of the skin, but sensible on pressure, and particularly so on motion. The form of the tumours, which corresponded to that of the muscles, whose increased size caused them to be strangulated by their aponeurotic sheaths; the pains, which became unbearable on the least motion; and the absence of any alteration in the surrounding tissues, left no doubt but that the muscles were inflamed. The antiphlogistic treatment, together with some opiates, were the means employed; but the pains continued, and exhausted the patient, who died the second day after his admission, and about five days after the commencement of the disease. On examining the body, the sheaths of the muscles were found greatly distended, and an incision gave issue to a greyish, homogeneous pulp, in which it was impossible to distinguish the muscular fibres, or cellular tissue, vessels, or nerves. In some of these tumours, which were less advanced, the muscular fibres could be recognized, but they were evidently softened, and had lost their colour.

Archives gén. de Méd., Juillet, 1836.

On Hypertrophy, with Dilatation of the Heart, in Children.

By Dr. TOEL, of Aurich.

DR. TOEL is of opinion that this affection frequently develops itself as a consequence of pulmonary inflammation, measles, hooping-cough, &c. It comes on insidiously, after the patient appears to have, in a great measure, recovered from one of the above complaints. It is a more frequent result if the latter have run an irregular course. Then, after some time has elapsed, the pulse, which had lost its inflammatory character, becomes quick, small, and sometimes irregular. A dry cough, without pain or expectoration, makes its appearance. The sounds of the heart are heard over a greater extent than usual; the strokes are not distinct, and would seem to flow into one another. The patient feels a weight and dull pain under the sternum, on the left side, but does not complain much of it. The breathing is shorter than formerly. The face assumes a very peculiar and almost indescribable expression of suffering. Towards evening the hands are perceptibly hotter; the jugular veins beat without intermission. The little patients are not yet thought to be very much out of health; they walk about, go to school, are only rather more delicate than usual, avoid an horizontal posture in bed, are very short of breath after exertion, and become more irritable than formerly. It is here, as usual, very difficult to define the point at which functional becomes structural derangement; but the latter may be confidently surmised when the symptoms continue without intermission, even during a period of perfect repose.

Dr. Toel recommends vigorous measures as soon as any of these symptoms make their appearance. The expectant method would lead inevitably to a fatal result. Antiphlogistic remedies must be adopted in full force, perfect repose both of mind and body enjoined, together with the absence of all stimulating, and the diminished exhibition of all nourishing agents. Should this stage of the disease be not combated vigorously and successfully, there is no hope for the future. The progress of the evil may be now slower, and now more rapid, and sometimes even be apparently arrested, but it is sure never to cease altogether. The symptoms which attend its advanced stage are too well known to need a new description. Dr. Toel's principal object is, to direct the attention of medical men to the fact that hypertrophy of the heart frequently follows the diseases above mentioned, as he is of opinion that such a result has not been sufficiently known, and consequently not sufficiently guarded against.

[A good deal of experience leads us to consider the preceding observations as of much practical importance. We believe that, in the majority of cases referred to by Dr. Toel, the primary affection of the heart is inflammation of the lining membrane of the cavities.—*Endocarditis.*]

Hannoversche Annalen, B. i. Heft 2. 1836.

On the Therapeutic Value of Extracts of the Solaneæ containing Green Fecula.
By MM. MARTIN-SOLON and SOUBERAIN.

EXTRACTS prepared from juices which have not been purified, and containing consequently the green fecula of the plants, have been recommended by Störck, and generally considered as useful medicines. In the greater number of plants, what is improperly called green fecula consists of a mixture of chlorophyle, of coagulated gluten, and of the debris of tissue,—substances of no medicinal value; but it would be wrong to conclude on this account that the green fecula of *all* plants is useless: it, however, may be doubted whether the opinion of those pharmacologists is correct who consider this fecula as the only active part of this family of plants, and do not hesitate to substitute it for the extract itself. MM. M. and S. have made experiments on the properties of the green fecula of belladonna, hyoscyamus, and stramonium, in order to determine whether it is a necessary ingredient in the common extracts, or if it could be separated without injuring their virtues. The experiments were made with two kinds of green fecula; the first, which may be called the insoluble matter of the juices, is that which is held in suspension after the tissue of the plant has been broken down, and been submitted to expression. It was collected by filtering the juice, and purified by several washings. The second kind, which is called green fecula, obtained by coagulation, is procured from the filtered juice after it has been heated. It contains, in addition to the ingredients composing the first species, albumen which is coagulated by the heat, and some matters entangled by the albumen during coagulation. In order to divide the doses equally, the fecula was, when still moist, mixed with sugar, and then dried in a stove.

Insoluble Green Matter of Belladonna. This was given to two patients: the first was a woman of sixty, with catarrh and chronic gastritis; one grain was given the first day, and the dose increased one grain daily. On the tenth day, the patient complained of muscæ volitantes: the dose was increased to fourteen grains without its producing any peculiar symptom whatever. The second patient was a woman, æt. thirty-two, convalescent from articular rheumatism: the dose was gradually increased to twenty grains, and no effect produced.

Green Fecula of Belladonna obtained by Coagulation. The first patient was a woman, æt. twenty, affected with rheumatic pains. Two grains were given at first, and the dose increased two grains daily. At fourteen grains, she complained of pain in the throat; she slept well, but dreamed more than usual, and had occasional spasms of the legs. When the dose was sixteen grains, she suffered much from her throat; her dreams were sad and frightful; her head heavy, pupils dilated, pulse regular; no rheumatic pains. The medicine was discontinued, and on the following day these symptoms entirely disappeared. The second patient was a phthisical young man of twenty: on taking twenty grains, he complained that his sleep was less tranquil than usual; no other symptom. In a third patient, æt. forty-four, phthisical, pain in the throat was complained of after taking ten grains; after fourteen, the pain increased, with slight headach; after sixteen, there was slight trembling of the hands, but the sleep was quiet. This tremor increased on augmenting the dose, and the medicine was discontinued.

Insoluble Green Fecula of Hyoscyamus niger. One trial was made in a young man, æt. twenty-two, convalescent from pneumonia. After taking twelve grains, he found some weakness of vision; his sleep was a little agitated.

Green Fecula of Hyoscyamus obtained by Coagulation. The patient was affected with habitual headach: dose augmented daily two grains. After taking ten grains, his sleep was disturbed; after fourteen grains, he slept more, but he complained of uneasiness in his legs; eighteen grains produced nausea, heaviness of the head, sleep disturbed by dreams. The medicine was omitted, and the day afterwards these symptoms ceased.

Green Fecula of Stramonium. Both kinds were given to the patients, and the dose carried to twenty grains, without any effect.

From these experiments, it may be doubted whether the green fecula which is left in the extracts of the plants with the juice can add to their efficacy: indeed, it

is a question whether their activity may not be impaired by the mixture of the active principle with so much inert matter. It is not unreasonable to conclude, that the slight effects in some of the experiments were owing to a part of the soluble principles of the juices remaining mixed with the green fecula, particularly as the coagulated fecula was the most active, which was washed with less effect. These experiments, however, are not sufficient to decide the question. Störck prepared his extracts with a heat so gentle as not to injure the juices, instead of evaporating them, as was the general custom, by prolonged ebullition, to the great injury of their active ingredients. This may account for the success he and others experienced.

Bulletin général de Thérapeutique, Février, 1836.

Tic Dououreux cured by the external Application of Tartrate of Antimony.
By Dr. HAUSBRANDT.

A WOMAN, more than sixty years of age, had suffered for many years from face-ache, the severity and long continuance of which almost reduced her to despair. As soon as the pain of the face ceased, the patient felt comparatively well: when the pain came on, which was always suddenly and without any ostensible cause, the muscles of the face twitched, and the eye of the affected side was closed; the whole face became remarkably pale, and the features indicated severe suffering. As no particular circumstance capable of inducing the attack, excepting perhaps taking cold, could be discovered, the treatment was altogether empirical. A considerable number of remedies, such as are usually employed for this complaint, were tried,—especially frictions, vesicatories, narcotics, carbonate of iron,—but the paroxysms returned with greater frequency, and the patient not only lost flesh, but her condition seemed desperate. Dr. H. prescribed the following plaster, which was applied over the whole of the affected side of the face:

R. Emplast. Resinæ flavæ, ℥i.

Resinæ flavæ, ℥ss.

Terebinthinæ venetæ, ℥iij. Liquat. adm.

Tart. Antimonii, ℥jss. ut fiat Emplast.

When this had remained on the face twenty-four hours, the patient experienced an itching, burning sensation throughout the spot covered by it, but the face-ache was relieved. At the end of several days the plaster was taken off, when the entire half of the face was found covered with pustules, which gave a good deal of pain, but which were very bearable in comparison to the former pains. The sores gradually healed by the application of simple dressing, and up to this time (three and a quarter years,) there has been no recurrence of the complaint.

Medicinische Zeitung, 6 Jan. 1836.

On Sulphate of Quinine introduced into the Nostrils in Iralgia.

By M. BOURJOT ST. HILAIRE.

THE pain attending some diseases of the eyes is very distressing. In acute inflammatory diseases, opiate applications, such as poppy decoction, or a poultice sprinkled with laudanum, are more serviceable than belladonna or other acrid narcotics. But when, in chronic iritis, there are periodical returns of pain, quinine is of great service. In the following case it was applied within the nostril.

CASE. M. B., æt. sixty, was operated on for cataract in June. The operation, which was by depression, was followed by acute inflammation of the globe, attended with great suffering: this, however, abated, and the patient saw well in August, when, on exposure to the air, he had an attack of iritis, with neuralgia of the sub-orbitary nerve. He was bled in the foot, leeches were applied in large numbers, and purgatives given, without much relief. The pain in the eye was excessive, lancinating, and returning regularly every two hours; more acute at night, preventing sleep. The usual opiate applications were tried without relief, and, as the pain was periodical, M. B. resolved to try quinine by the endermic method. Six grains were twice applied to the raw surface of a blister placed on the nucha. This produced decided and immediate relief, the patient passing the two nights

following the application in almost complete tranquillity; but the blistered surface became covered with a white film, and absorption being hindered, the pains returned. Reflecting on the distribution of the nasal branch of the ophthalmic nerve on the mucous membrane of the nostrils, M. B. ordered small pinches of the following powder to be snuffed up the nostrils at night:

R. Sulph. Quininae, gr. vj.
Pulv. Sacchar. pur. 5j.
Pulv. R. Iridis, 3jss. M. fiat pulvis.

This produced the desired effect, quieting the pain whenever he used it.

Gazette Médicale de Paris, 26 Mars, 1836. No. 15.

Cure for Drunkenness.

A NATIVE of Norway, aged forty, who had from his youth been accustomed to dram-drinking, was attacked with delirium tremens. His medical attendant, to cure him of his dangerous propensity, prescribed the daily use of a mixture of two drachms of sulphuric acid and twenty-four ounces of whiskey. The result was remarkable: in three months' time he got such a dislike to all kinds of spirituous liquors, that he could not bear to swallow a drop of any thing stronger than beer. The dose of the above mixture taken was four wine-glasses daily, and the cure had been of a year's standing at the time of the communication of the case.

Eyr. Tiende Bind. andet Hefte.

Stuttering occasioned by Worms. By Dr. SCHULTZE.

A BOY, aged five years, who hitherto could distinctly pronounce even the most difficult words, and readily communicate his thoughts, all at once began to stutter. As no organic defect could be perceived, Dr. S. thought that the impediment might be occasioned by worms, as he had often noticed an entire loss of speech, lasting many days, to depend upon this cause. He therefore ordered an electuary composed of jalap, semin. cinæ, tanacet., and magnes. sulph., with syr. mannæ, to be given. By this medicine, a large quantity of the ascarides lumbricoides were voided, and the boy was again restored to the free use of his speech.

Med. Zeitung, 6 Januar, 1836.

SURGERY.

On Neuralgias of the Urethra and Neck of the Bladder. From a Memoir read at the Academy of Sciences, July 6th, 1835, by M. CIVIALE, D.M.P., Surgeon of l'Hôpital Necker, &c.

By this name M. Civiale designates a very common affection of the genito-urinary organs, which is often attended with severe symptoms, but which cannot be explained by any discoverable organic changes. Hitherto, from the irregularity of its progress, the variability of the symptoms, the difficulty or impossibility of distinguishing it from other morbid states, it has been neglected by practitioners.

Causes. Rarely appreciable: it is generally observed in those whose nervous system has been over-excited by venereal excesses or moral emotions, or who have had neuralgia of other parts of the body. Prolonged irritation of the urethra and neck of the bladder, commencing stricture, constipation, diseases of the rectum and uterus, are circumstances favouring its production; but many are exempt from these causes.

Symptoms. Very vague and variable. The sensations, and the difficulty in making water, may depend equally on stone, organic disease of the prostate or bladder, paralysis of the bladder, stricture, &c. Notwithstanding this, the mobility of the symptoms points to their cause: they cease, reappear, increase, and diminish, without appreciable cause, and more rapidly than any other affection.

On these accounts, they do not fix the attention of the patient until their third or fourth return. At first, the frequent desire to make water, with difficulty and pain, comes on in paroxysms, with long intervals of perfect ease. To this is added an uncomfortable itching, with sensation of ardor, along the urethra, and particularly at the extremity of the penis; from whence it proceeds to the pubes, groins, sacrum, and kidneys. Urine almost always natural. These attacks rarely affect the general health. Sometimes they return at regular intervals; daily at the same hour, or every few days. The paroxysms generally increase in frequency and length as the disease continues. When they take on the quotidian type, they usually occur in the evening or night, or during digestion. Absence of occupation, all causes of excitability, and especially the fear of not being able to make water when needful, contribute to bring them on. The less water in the bladder, the greater difficulty and pain in voiding it. Fever very rarely accompanies the pain, however violent and obstinate, although the patient sensibly loses flesh. In process of time an organic disease is set up; and this nervous state is complicated with symptoms of catarrh, or some other severe alteration in the bladder or prostate. The rectum in time becomes affected, and the general health suffers. If the surgeon is consulted at this time, it is almost impossible for him immediately to recognize the primitive neuralgia, unless the patient gives (as he rarely does,) a clear history. If there is neither stricture, lesion of the prostate, nor stone in the bladder, the case is more simple; and, if there are complications, their severity is never in proportion to that of the symptoms. But local examinations are necessary to elucidate the case. Their effect is important in the diagnosis, for they ameliorate more often than they exasperate the disease. Inexperienced surgeons in these cases meet with difficulty in passing the bougie or sounds over the point which is the seat of the neuralgia; and this difficulty and pain are set down too easily as the effect of stricture. Such cases are more numerous than is imagined, and many modes of curing stricture owe their celebrity to these neuralgias. There are cases where instruments cannot be borne, in which profound lesions of the prostate and bladder are accompanied with excessive irritability of the urethra. Which was the primary affection can rarely be discovered. If a calculus is the cause, there is some hope; but, when there is chronic catarrh, with deep-seated alteration of the walls of the bladder or of its neck, carcinomatous tumours, &c., art is insufficient, even if a catheter could be introduced and retained.

Treatment. At their commencement these neuralgias are not serious. M. Civiale was led to a mode of treatment both easy and almost always successful, by the effects of the instruments of lithotrity. It would be imagined, when a patient about to be operated on had symptoms of excessive irritation, that the manipulations would aggravate his sufferings: more than once, however, M. Civiale has seen them diminished, and even cease. His indications are,—1. To diminish, by the contact of a foreign body, the increased and disordered sensibility of the urethra. 2. To produce a temporary disturbance of the function, and to break, by strong sensations, an inveterate habit of suffering. 3. To displace the irritation.

Sometimes, after accomplishing the first indication, the symptoms cease. M. Civiale has applied the well-known principle, that a bougie introduced, and kept some time in the urethra, renders it insensible. With this view he passes a soft bougie, of middle size, and leaves it for five or ten minutes; then withdraws it, and reintroduces it daily until it passes without pain; finally, he changes it for a larger one, if necessary. Ten or twelve introductions daily or every two days, according to the irritability of the patient, are generally sufficient in old cases, and fewer in recent ones. In all cases the symptoms diminished progressively. The bougie should not be suspended until it gives no pain. Towards the end, bougies of two and a half to three lines in diameter should be used, as they detect the commencement of strictures. If this does not succeed, a stronger impression must be made by the friction attending the introduction of a catheter, or of a lithotrity instrument. M. Civiale has seen a great many patients in which this plan has been pursued at the beginning, for the purpose of ascertaining if a stone existed, who were cured of the neuralgia by the shock alone. If the disease is still obstinate, and especially if it is accompanied with atony of the bladder, injections of pure

water, of which the temperature is gradually diminished, contribute much to the cure. Irrigations are still more beneficial, even in cases apparently desperate. The last resource is revulsives, to displace the disease; such as purgatives, cold douche baths, or tartarized antimonial ointment to the hypogastrium and perineum. Other means should not be neglected. The state of the bowels is one of the most important, and M. Civiale has cured several by relieving obstinate constipation. The urine, if scanty and high coloured, should be rendered less acid by baths, lavements, drinks, diuretics, alkalies, mild diet, &c. Such are the means which should generally be employed; but, in inveterate cases, the application of caustic, forcible injections, ligature of the penis near the glans (to prevent the escape of the urine), have been beneficial, by producing a stronger impression. They should not be employed unless a milder plan has failed. M. Civiale has found in such cases the light application of caustic over a considerable surface more particularly beneficial. In these inveterate cases the means should be varied, and persisted in for a length of time. Sometimes no treatment is beneficial; the amelioration is temporary and imperfect; the urethra does not become accustomed to the bougie. Repeated purgatives, cauteries, and even setons near the diseased spot, should be tried. M. Civiale has seen patients so discouraged as to leave off all treatment, and recover when they least expected it, and when they were doing nothing for it. Neuralgia should also be considered, in reference to treatment, as a complication of organic diseases of the genito-urinary organs. Thus, in catarrh of the bladder, which is often complicated with spasm or neuralgia of the urethra, the cure of the neuralgia sometimes modifies and diminishes the catarrhal affection, and favours the action of remedies. In organic strictures of the urethra, by removing the spasm and neuralgia, the symptoms are mitigated, and the chance of retention of urine prevented. In the treatment of stone, by removing the neuralgia, the operation is rendered possible, and even easily borne, which, from the nervous irritability of the neck of the bladder and urethra, was previously considered as likely to be very painful or impracticable. The neuralgias attending profound organic changes of the neck of the bladder are beyond the resources of art.

Gazette Médicale, 18 Juillet, 1836.

On the Section of the Tendo Achillis in the Treatment of Club-feet.

By M. BOUVIER.

THIS is extracted from a memoir read before the Academy of Sciences, on the 5th and 12th of September, 1836. The variety of club-foot which consists of a forced extension of the foot is an effect of the permanent contraction of its extensor muscles and their tendon. The club-foot turned inwards is owing in a great part to the same cause. In both cases, the treatment consists in elongating the extensors of the foot by slow and sustained extension; the same end may be obtained by dividing the tendo Achillis, and retaining the ends apart: this is principally applicable in old cases, where machines only are often inefficient or dangerous, or where rapidity is essential. It was performed first in 1784, by Thilenius, near Francfort; since by Sartorius, Michaelis, and Delpech; and recently by Stromeyer. M. Bouvier has adopted a more simple operation than Stromeyer: he introduces under the skin covering the tendon a kind of needle, cutting on one side, by means of which he cuts the tendon through from its cutaneous surface inwards. The external wound is slight, and heals in a day or two. In a few days the foot is brought into its natural position, and the tendon unites in a few weeks without any signs of inflammation. Delpech and Stromeyer waited the commencement of union until they changed the wrong position of the foot; but M. Bouvier prefers separating the divided ends of the tendon immediately after the section: this prevents the pain caused by stretching the cicatrix, and does not risk the accident which once happened to Stromeyer, who found that the cicatrix could not be extended. M. Bouvier has traced in dogs the mode of reparation, and finds that a new portion of tendon is formed by successive transformations of the cellular sheath of the tendon. He illustrates his memoir with four cases.

The first case was that of a girl, æt. 14, who had had a club-foot since two years

of age, owing to a scrofulous abscess. The section was made on the 15th of January last: at the end of a fortnight, the foot, which before the operation was in a line with the axis of the limb, formed with it nearly a right angle, and eight days after, it had passed this angle. The disposition of the tarsal bones, altered by the long continuance of the deformity, was the only delay of the re-establishment of the functions of the limb.

The second case was still more remarkable, on account of the advanced age and indocility of the patient, who would never submit to the proper application of the apparatus after the operation. The patient was a man forty-six years old, who had had a club-foot of the right side since six years of age. The external wound healed the second day. Three weeks after the operation, the foot formed a right angle with the leg, and the continuity of the tendon was re-established. He left the hospital at the expiration of forty days. He now walks on his flat heel, and makes long journeys on foot.

The third case was that of a girl, aged thirteen, who had had a club-foot from the age of four, in consequence of paralysis of the right side of her body. The exterior wound, the size of a leech-bite, healed on the day after the section was made. Immediately afterwards the foot was bent, and eight days after it formed a right angle with the leg.

The fourth case occurred in the practice of M. Roux. A boy, twelve years old, had retraction of the heel, and subsequently club-foot, from a wound in the calf when two years and a half old. The tendon was divided by M. Roux on the 4th of August, and on the following morning the foot was brought to a right angle. In three weeks the cicatrix of the tendon was firm, and there was no trace of the deformity.

M. Bouvier has at present two cases under his care, in both of which he has divided the tendon: one is a young man, æt. 23; the other a woman, aged 53, in whose case machines are also necessary. M. Bouvier presented (besides the casts of these cases,) the cast of the feet of the first patient, operated on by Delpech twenty years ago, who was accidentally met with in Paris. There has been no relapse, the cure being still perfect.

Journal Hebdomadaire des Sc. Méd. No. 38, 17 Septembre, 1836.

On the Radical Cure of Hernia in America.

WE have more than once taken a favorable notice of the invention by Mr. Stagner, of Kentucky, of a wooden headed truss, for the *radical* cure of hernia. Mr. S. is not a professional man, but his suggestion soon attracted the favorable notice of the medical gentlemen of the region in which he resided, and among the rest of Dr. Hood, a graduate, we believe, of Transylvania University; who visited the eastern cities, and sought to attract to the invention, the notice both of the people and the profession, and considerable success attended his efforts. It was soon discovered, however, that the form of Stagner's wooden pad (which was invariable) did not answer for every case; and this led to efforts, by different surgeons, to effect such modifications of figure, as might render it of general applicability. Among those who have exerted themselves in this laudable object, are Dr. Hood, whom we have just named, and Mr. Chase, of Philadelphia; each of whom has produced modifications of size and form, calculated, or at least intended, to augment its advantages. The deep interest of the subject induced the Philadelphia Medical Society to appoint a committee, "To investigate the character of Stagner's Truss, and other proposed means of radical cure in hernia;" and on the 5th and 12th of December, 1835, the committee, consisting of Drs. Reynell Coates, William Ashmead, and Isaac Parrish made their report, which was published in the *American Journal*, and from which we propose to give a few extracts.

After the citation of a number of cases, going to show the efficacy of the modifications of Stagner's block in restraining and curing Hernia, the report presents us with the following testimony as to the former point:

"The committee are decided in the opinion, that the retentive power of solid blocks exceeds, *cæteris paribus*, by considerable difference, that of pads composed

of softer materials. If there could be any exception taken to this rule, it would be in favour of pads formed of very firm but highly elastic materials; but the only substance of the latter character, now employed in the construction of truss-pads, is the gum elastic, and against the direct application of caoutchouc to the skin there are strong physiological objections. Moreover, the committee is by no means prepared to advocate the superiority of elastic pads, in the present state of their knowledge. Whatever they may gain in facility of application, they lose in certainty of action. The great excellence of the solid truss-block is its perfect precision, and if required to adapt itself to changes of position in the part to which it is applied, it can be enabled so to do by the elasticity of the spring of the truss.

"Two circumstances should be stated in this place: the incompressibility of very firm pads and hard blocks renders it of the utmost importance that their form should be accurately adapted to the particular parts on which they are designed to act, and that they should be carefully placed and secured in correct relation with those parts. Carelessness in either of these respects would incur dangers, grave in just proportion to the power and usefulness of the apparatus. Hence considerable anatomical and surgical skill are requisite, both in the contrivance and the application of trusses armed with such pads or blocks, and they can never be permitted to pass, with safety, out of the hands of surgical scholars and practitioners. Again, the application of such machines, in early infancy, is deemed by the committee both unnecessary and improper.

"With regard to other dangers and inconveniences, your committee will merely remark, that the charge of danger of general peritoneal inflammation from the communicated irritation of the blocks, when their application is directed by competent skill, is deemed nugatory, and in opposition to both well-known pathological laws and the direct evidence of experience. The committee, therefore, think that these alleged dangers do not appreciably affect the permanent retentive power of the apparatus.

"There is apparently one slight additional security against the descent of the bowel in inguinal and certain other hernia, which is often consecutive upon the use of the hard block for a moderate length of time. This is the rapid absorption of the deposits in the subcutaneous cellular tissue, and sometimes in the dermoid tissue also, which permits the block to act almost immediately upon the tendinous canal, thus effectually closing the neck of the hernial sac, of which it very probably produces the obliteration. It is possible that the temporary security produced by this means, which very slightly opposes the formation of a new sac, has been a cause of deception with regard to certain cases reported as radical cures, but which have been subjected to relapse.

"In regard to the retentive power of particular blocks, the committee are prepared to express their warm approval of the inguinal block of Mr. Chase, [Fig. 1,] in which, at present, it can suggest no improvement. It also approves of Dr. Hood's ventro-inguinal block, [Fig. 2,] with the parabolic projection, but considers a more perfect instrument, to fulfil the same purposes, both possible and desirable."*

On the very important question of a *radical* cure, from the use of the wooden block, the report holds the following language:

"With respect to the question of the radical cure of hernia, by means of the best of the instruments which have passed in review, it should be borne in mind, that success in cases of umbilical hernia in young children is almost general, when methodical bandaging has been judiciously employed. That in other varieties of hernia, affecting subjects of similar ages, success is by no means rare, under the operation of trusses with soft pads; that in children over ten years of age, it becomes

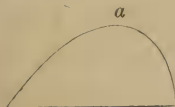


Fig. 1.

* These figures give a section of the pads at the point of their greatest diameter; *a* being the side applied to the body. The sections are taken from the original Report in "The American Journal of the Medical Sciences."

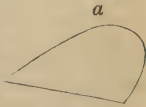


Fig. 2.

rather uncommon; that in youths between the age of puberty and that of twenty years, it becomes rare; and after the latter period, *very rare*. These remarks premised, the committee are of opinion, that the chances of radical cure depend mainly upon the retentive power of the apparatus employed, and their opinion on this subject has been already expressed. It would be wrong to enter upon the calculation of probabilities, without much more extended observation than has yet been possible, but the committee have no hesitation in stating that the action of the several blocks recommended appears to offer much more prospect of radical cure, even under unfavorable circumstances, than any apparatus previously offered to the public, and which has fallen under their notice after considerable research."

As to the *modus operandi* of the block, in effecting a radical cure, the committee incline to the opinion, that an accurate, perfect, and constant retention of the protruding part, is far more important than the excitation of inflammatory action. We shall not follow them in their reasonings on this subject, which embrace a reference to the spontaneous closure of the *tunica vaginalis testis*, in childhood; for no certainty will attend our knowledge on this subject, until accumulated dissections shall have been made of those who have been radically cured; and of course this will require the lapse of many years.

Western Journal of the Medical and Physical Sciences. No. 35. 1836.

Cases of Foreign Bodies introduced into the Stomach and Anus.

By J. P. Dor. (*Thesis*.)

CASE I. A man, æt. thirty-two, who had suffered in his bowels for some time, had nausea and vomiting, and passed, after much exertion, some liquid matters, slightly coloured by the rectum. There was some fulness and also dulness of sound in the middle of the abdomen, and these symptoms were replaced by the appearance of a middle-sized tumour, uneven, lumpy, and moveable under the hand. Disease of the mesenteric glands was suspected: two months after the commencement of the disease he died of peritonitis. On dissection, besides the marks of peritoneal inflammation, there was found considerable dilatation of the small intestine, with decided contraction of the large intestines. At the junction of the ileum with the cæcum, there was a sac with thick walls, adherent to the neighbouring parts, of the size of the head of a foetus, and formed by the ileum. This sac contained 120 plum stones, some cherry stones, and ninety-two balls of lead, whose surfaces were completely indented with small facets. The ileo-cæcal valve, which corresponded to the lower part of the right side of this sac, was almost entirely obliterated, only leaving a small hole through which liquid might pass. All the other organs were healthy. From the history of the case, it was probable that the primary affection was a partial contraction of the intestinal cavity, which, hindering defecation, induced the patient to swallow at first fruit stones, and then balls, to overcome the obstacle which he supposed to exist.

CASE II. M. A. Berard, in his essay on Diagnosis, relates a somewhat similar case. An old woman had a large tumour at the umbilicus, giving an unequivocal sensation of crepitation. On dissection, considerable contraction of the intestine was found, behind which were accumulated more than six hundred cherry stones, and in front of this was a collection of pus. The sensation produced by the stones rubbing against each other was so similar to the crepitation of emphysema, that error was almost unavoidable.

The following three cases of foreign bodies introduced into the rectum happened at Marseilles. In the first, a wooden pestle was introduced by the small end, and the large end was deeply buried in the anus, so that neither forceps nor the fingers could have taken hold of it. Pincers jointed like the branches of the forceps were insinuated to some depth over the body of the pestle, and it was extracted. The patient, notwithstanding, died thirty hours afterwards, from inflammation of the rectum, the consequence of the attempts made by himself and the surgeon at extraction. The next case is one in which a young man introduced a fork into the anus. The prongs were situated too inches within the cutaneous margin of the anus, and

penetrated the sides of the gut on the slightest traction. By means of forceps they were so compressed together as to form but one, and the extraction was then easy. The third instance is that of a young man who introduced into the rectum an eau de cologne bottle, which the efforts of defecation could not expel. M. Raymonet tried fruitlessly to withdraw it by means of the fingers and the usual instruments. It then struck him that he might remove it by introducing into the bottle itself (the neck being downwards) a pair of forceps whose branches were made to separate by a sliding ring, and as the neck of the bottle was sufficiently strong this plan answered.

Archives Gen. de Med. Juillet, 1836.

Statistical Results of Amputations. By M. A. GENDRON. (*Thesis.*)

FROM the result of sixty amputations in adults, M. Gendron has drawn the following corollaries:—1. The chances of success are greater in proportion as the individuals have been for a long time exposed to a debilitating cause. Of twenty-four operations under such circumstances, there were fifteen cures, and nine deaths. 2. The chances are equal in patients who have been for a short time exposed to a debilitating cause, that is to say, in those in whom the disease, when they entered the hospital, has not required amputation, but in whom it has been obliged to be resorted to from subsequent accidents. Of eleven operations, there were four cures, and seven deaths. 3. The chances of success are very slight in amputations in vigorous individuals, immediately after accidents requiring the operation. Of eight operations, there were seven deaths, and one cure. 4. Union by the first intention, or immediate union, is in general preferable to mediate union or by granulation. Of sixteen cases of amputation, in which this latter was attempted, six were cured, and ten died: of the latter there were eight with unequivocal appearances, on dissection, of reabsorption of pus; of these eight, there were three who died at most two days after amputation, which ought not to be counted: there remain, therefore, five cases in which both the symptoms and the lesions of reabsorption of pus only appeared after the operation. Of the two fatal cases, which complete the original number of ten, the one died thirty-six hours after the operation, and the other between the tenth and eleventh day, which is the only one which can be counted, if the facts are examined with regard to reabsorption. Therefore, of six individuals in all who had no symptoms of reabsorption of pus before amputation, there was only one in which, on examination, traces of this disease were not found. It may, therefore, be concluded that, if union by granulation is not the cause of these secondary abscesses, it at least does not oppose their formation. Of twenty-nine amputations, where union by the first intention was employed, fifteen died, and fourteen were cured. All the bodies were not examined, and notwithstanding, even supposing that all those who were not examined after death had died from reabsorption of pus, the proportion of this kind of lesion would be much less than in the other series of cases.

[We have extracted these particulars, not for the value of the corollaries as universally applicable, but from their affording some means of forming a judgment on the relative success of amputations in France and England, and from their furnishing data towards estimating the advantages of the two very opposite modes of treatment most prevalent in the two countries; that of simply bringing the edges of the skin together, and lightly dressing the wound so as to produce union with the first intention, (which is the almost universal custom here,) or of stuffing as much charpie as possible into the wound for the purpose (which it fully answers,) of producing suppuration, as is the most usual plan in the Paris hospitals.]

Archives Gen. de Med. Juillet, 1836.

On Inguino-interstitial Hernia. By G. GOYRAND, D.M.

THIS name is applied to the form of hernia termed by most authors *incomplete inguinal*, and described by Boyer as *intra-inguinal*. The author objects to the former term; because, whatever may be their situation, when the viscera have

escaped from the abdomen, the hernia is complete; and to the latter, because the inguinal canal does not always constitute the limits of the protruded viscera.

M. Goyrand has had several opportunities of examining the nature of this form of hernia. Its seat is the inguinal canal, but, if voluminous, it extends outwards, towards the iliac spines, separating the inferior layers of the lesser oblique, and even of the transverse muscles, from the fascia transversalis. It has two membranous coverings,—the sac and the serous investment of the spermatic cord. The cavity in which it is contained is bounded, anteriorly, by the aponeuroses of the great oblique muscle, and by the inferior fibres of the lesser oblique, and the origin of the cremaster; posteriorly, by the fascia transversalis; above, by the inferior border of the transverse, and some fibres of the lesser oblique muscles. The aperture by which it escapes from the abdomen is generally the opening in the fascia transversalis, through which the spermatic cord passes; on the internal side of which are the epigastric vessels, and inferiorly the spermatic cord. Superiorly and externally, the hernia is in connexion with no vessels of importance. The inguinal ring forms the inferior orifice of this cavity. The neck of the sac is embraced by the abdominal opening, and these parts are adherent in an old hernia. The hernia extends more easily through the inguinal canal than towards the iliac spines; since, in the latter direction, it must make a passage between the muscular fibres. Thus, the communication of the accidental cavity with that of the abdomen is commonly situated nearer to the external than to the internal extremity of the swelling. A portion of the hernia may project beyond the inguinal ring, when it will appear to consist of two distinct portions. It may be congenital, and the testicle is then situated on the inferior wall of the hernial cavity, and projects at the posterior and inferior part of the sac. Its coverings, in the order of their position, from without inwards, are, the skin, adipose tissue and fascia superficialis, the aponeuroses of the external oblique, sometimes in old hernia very thin; a muscular layer, thin and pale, formed by the fibres of the internal oblique and cremaster, which also in old ruptures is scarcely recognizable; the cellular prolongation of the fascia transversalis and the sac. Between the last two there may be a degeneration of a fibrous or fatty nature, of the subserous cellular tissue. The inguino-interstitial hernia does not always escape from the internal inguinal aperture: its point of origin may also be external to this aperture, and consequently external to the epigastric artery, or it may be within, and having the epigastric artery on its outer side.

The local symptoms of this hernia are, an ovoid, flattened tumour, situated obliquely in a line, drawn to the pubes, from the anterior and superior spine of the ilium. But, if the tumour be small, if the fascia of the external oblique should be resistant, and of its normal structure, or the patient fat, the diagnosis becomes difficult. In consequence of the resistance of the fascia, in one of the cases which is related, although six inches of intestine were excluded, and the patient was not very fat, there was no appreciable swelling. Before dividing the stricture, in the operation, the aperture at which the viscera have escaped from the abdomen may be ascertained by following the spermatic cord towards the internal inguinal opening. The author recommends several small incisions to be made in the stricture, in preference to one large incision; as there is, in consequence, less danger of hemorrhage, and less subsequent weakness of the abdominal parietes at that point.—*Mémoires de l'Académie Royale de Médecine*, tome v. 1836.

Remarks on some of the remote Effects of Fractures of the Femur.

By Dr. J. GUYOT.

THE object of this paper is to notice an affection of the femur, occurring subsequent to its fracture, at a period more or less remote from the time of consolidation. The author has found it no where noticed by surgical writers, and he is further disposed to believe that it has not been recognized, as the cases are generally considered as without the sphere of surgical treatment. An analysis of the first case will present the principal points of importance.

M. Turgot, in consequence of a fall from his horse, had suffered a fracture of the femur, at the junction of its upper with its middle third. This had happened three years and a half ago. At the time of its occurrence M. Dupuytren had treated the patient; but, in consequence of a change which was made in the apparatus, during the process of union, consolidation had been very slow, and was followed by deformity. The patient was able to walk with the assistance of a short crutch. Subsequently, the callus became swollen and excessively painful; the whole limb œdematous, and of a violet colour. The limb was unable to support the body, and the least contact of the foot with the ground gave rise to extreme pain. From this time onwards, for three years, no means were efficacious in restoring the callus to its original state. After the use of treatment directed to the general health, there was some amelioration; but the patient was obliged to support the limb, and very trifling causes of irritation sufficed to bring on an inflammatory condition of the callus, accompanied with pain, swelling, increased heat, and spasmodic actions of the muscles. This condition, accompanied with much constitutional disturbance, lasted on one occasion for about nine days. On examining the limb, M. Guyot found that there was an overlapping of the broken extremities of the bone, with an enormous deposition of callus; the neighbouring parts being much engorged. After having in vain employed various mechanical contrivances, M. Guyot confined his patient entirely to bed, and applied the apparatus of Boyer, without any compresses, the action of which was simply to extend the limb by its two extremities, like the string of a bow. In two or three days' time, it was necessary to employ a mechanical bed. Eight days afterwards, the limb had acquired its natural size and colour: the extending force was slightly augmented every day. In consequence of a slight effort made by the patient, there was return of pain in the same parts. A large blister was applied, and several times repeated, at intervals of a few days. Six weeks after the commencement of this treatment, M. Turgot was able to support himself on the diseased limb, and, after a large cauterization of the thigh, posterior to and on a level with the situation of the fracture, the symptoms were gradually and entirely removed, and the patient was able to walk without the assistance of any support.

The second case which is related is not complete. In the third, the same class of symptoms occurred six months subsequent to a fracture of the cervix femoris, and continued, with various degrees of intensity, until M. Guyot was consulted twelve months after the accident. The application of blisters, and subsequently of cauterization, were effectual in this case to restore the limb to its functions.

M. Guyot considers that the nature of the affection is an inflammation of the callus, of a chronic character, situated in its interior, and extending to the periosteum and fibrous textures connected with it; and that counter-irritants, such as blisters and cauteries, are the only effectual means of treatment.

Archives Générales de Médecine. Février, 1836.

On Inflammation of the Superficial Mucous Glands of the Male Urethra.

By Dr. W. KLEEGER, of Königsberg.

Dr. KLEEGER looks upon this affection of the urethra as similar to the disease of the mucous follicles of the genital organs of the female, described by Dr. Fricke, of Hamburg. He thinks that it is sometimes combined with clap or gleet, and sometimes not; and that it can be distinguished from them by an accurate examination of the orifice of the urethra, and by its not being amenable to the usual anti-gonorrhœal remedies. The disease attacks the outermost row of mucous follicles, which lie close under the tender skin of the glans, and whose orifices are distinguished with difficulty in the healthy state. The inflammatory affection of these follicles may arise as an idiopathic disease, but it is most frequently associated with gonorrhœa: it generally exhibits in its course the following phenomena:—The immediate circumference of the mouth of the urethra becomes swollen, and of a brownish red colour; and the pain, which is but slight, is scarcely increased during the passing of water. In consequence of the inflammatory swelling, the mouths of the glands become obstructed, and, in the course of two or three days,

pustules are formed in their places, which break and discharge a yellowish pus. The orifices of the large mucous follicles are now seen dilated and surrounded by a swollen dark-red border, and they discharge a muco-purulent fluid into the urethra; if this be washed off, and the glans compressed, the fluid is distinctly seen issuing from these openings. Besides this blenorrhœa of the internal walls of the mucous follicles, there may be also suppuration established round the external walls, as the result of a more intense degree of inflammation; and, in this case, larger pustules are observed at some distance from the mouth of the urethra, which burst, and leave behind an excoriated surface, instead of an inflamed follicle. Occasionally, the disease spreads more deeply into the urethra, and after the lapse of two or three weeks, during which the patient had not exposed himself to any fresh infection, he observes, to his astonishment, the sudden appearance of a gonorrhœa, which he is inclined to attribute to the surgeon's ignorance of the first symptoms of his disease. The dot-shaped openings observable near the orifice of the urethra in this disease look like minute chancres, and are sometimes mistaken for such. Sympathetic buboes also appear; but they never, as in case of gonorrhœa, attain a remarkable degree of inflammation. The enlargement of the glandular orifices does not disappear for several weeks after the disease is cured.

The chronic stage of this affection is distinguished by a permanent copper-coloured blush round the orifice of the urethra. Besides this, there is scarcely any other symptom of disease, except a slight watery secretion, which glues together the lips of the urethra at night. By holding up the orifice of the urethra and pressing the glans, minute whitish flakes are seen to issue from the mouths of the mucous follicles.

The treatment of this affection always requires the employment of appropriate local applications, in addition to the remedies prescribed for gonorrhœa, whether it be accompanied by the latter or exist as an idiopathic disease. In the acute stage, Dr. Kleeberg uses the saturnine lotion, and afterwards a weak solution of corrosive sublimate applied on charpie. From his own experience, he is convinced of the advantage of opening the pustules at an early period, to prevent the inflammatory swelling and obstruction of the glans. In the chronic stage, he employs solutions of corrosive sublimate or caustic potash. In cases of obstinate blenorrhœa from the cavities of the glans, he has found the introduction of a piece of caustic scraped to a fine point the only efficient means of cure.

Zeitschrift für die gesamte Medicin, Band ii. Heft 2.

On the Elevation and Depression of the Pelvis, in Luxations of the Femur; and on certain forms of Lameness, hitherto undescribed. By JULES GUERIN, M.D.

In dislocations of the femur upwards and outwards, the pelvis is always elevated on the luxated side, in a degree proportionate to the surface of the ilium, over which the head of the bone has passed. The fact, which is constant, is thus explained:—In passing upwards on the external surface of the ilium, the superior extremity of the femur drags with it the united tendons of the psoas and iliacus muscles, which are inserted into the lesser trochanter. These tendons, pressing against the inferior part of the anterior border of the ilium, upon which they are reflected as in a pulley, elevate the pelvis, because they are unable to accommodate themselves to the distance which would exist between their two points of insertion, supposing the pelvis to remain fixed. The part where this pressure is effected, by the united muscles, is shown by a depression, more or less deep, at the base of the anterior inferior spine of the ilium. The principal consequences of this fact are the following:—1. In all the luxations of the femur upwards and outwards, the shortening of the luxated limb is greatly owing to the elevation of the pelvis. 2. The more complete the luxation, the greater is the elevation of the pelvis. 3. In old double or congenital luxations, the bending of the loins and the elevation of the pelvis forwards, are the consequences of the double ascent of the inferior attachment of the psoas and iliacus on the external surface of the ilium. 4. In the other dislocations of the femur, the pelvis is always influenced by the relations between the origin and insertion of these muscles: thus, in the dislocation upwards and forwards,

where the inferior insertion approaches the superior; the pelvis is elevated on the opposite side, and, by its depression on the luxated side, completely destroys the appearance of shortening of the affected limb.

The operation of the same cause is evident in the following circumstances:—5. In the disease of the hip-joint, where the elevation or depression of the pelvis gives the appearance of shortening or elongation to the limb; the action of the psoas and iliacus is the cause of the phenomena. In the early period of this disease, the pain which induces the patient to incline the trunk towards the diseased side relaxes the psoas, and causes a depression of the pelvis on that side; whilst, from an opposite cause, it is elevated on the other side. In the second period, when the bone is partially or completely dislocated, and there is frequently contraction of the psoas, all these causes combine to produce elevation of the pelvis on the diseased side. 6. After the reduction of the majority of old dislocations of the femur, and even after the cure of hip-disease, although the limbs are of equal length and the articular surfaces exactly in contact, there remains a lameness, which depends on the elevation of the pelvis. 7. There is a congenital or acquired lameness, in which there is an apparent shortening, although the two limbs are of exactly the same length, and the articular surfaces accurately in contact; and this species of lameness, hitherto unnoticed, is owing to an elevation of the pelvis, on the side which appears the shorter.

Gazette Medicale, No. 15, 1836.

On a new Mode of treating Herpes, (Dartres.) By Dr. BUGLIARELLI.

THE success of the following treatment of herpetic eruption is confirmed by thirteen cases, in which a cure was speedily effected.

Five pounds of sublimated sulphur and eight of common oil are to be mixed in a glass matrass, with a large mouth, well luted. They are then to be gradually heated in a sand-bath, the heat being increased until the sulphur is quite liquefied. The mixture, when reduced to two pounds, is to be allowed to cool, and then, after five pounds of alcohol are added, it is to be again reduced to two pounds, by the same means; after which, on separating the residue, a spirituous oil is obtained which, when united to an equal quantity of muriatic acid, forms the antiherpetic liquor of the first degree. This is fitted only to the chronic form of the disease, and is to be used occasionally in the course of the treatment. One part of this liquid united with two parts of the distilled water of elder-flowers constitutes that of the second degree, which is useful in old indolent forms of the disease. The addition of three parts of elder-flower water to one part of the liquor of the first degree, constitutes that of the third degree, when it may be employed in recent cases and when the skin is very sensitive. Half a pound of the first liquor, mixed with a similar quantity of the second, is sufficient to cure an eruption which occupies the whole cutaneous surface, and that within two months.

This remedy is used internally as well as externally, its action being aided by other means. The author commences his treatment by purging with Epsom salts; on the third day he prescribes warm soft-water baths, diaphoretics, and Ethiops mineral. The warm bath is repeated twice a week, and in it are boiled one pound of sulphur and half a pound of quick lime. The diseased spots are touched daily, by means of a small brush, with the liquid.

If the patients would not submit to the use of the protosulphuret of mercury, the anti-herpetic liquor of the first degree was substituted; the dose being from ten to thirty drops in a pound of the diaphoretic decoction. The diet should be more vegetable than animal, and saline and acidulous substances should be avoided.

Giornale delle Scienze Mediche, per la Sicilia. 1835.

New Method of reducing Luxations of the Humerus. By M. C. GERARD.
(Thesis.)

M. GERARD has employed the following plan in thirteen cases of dislocated humerus, during the last fifteen years. All the cases were recent; he thinks it advisable in all the kinds of dislocation. The patient being seated in a chair, an

assistant, placed on the side opposite to the luxation, passes his arms around the neck of the patient, and, crossing his hands over the luxated shoulder, opposes the efforts made by the surgeon to replace the bone. The surgeon, stationed on the injured side, places his left forearm beneath the upper part of the dislocated bone, as near as possible to the armpit. He then approaches his patient so closely as to allow the cubital end of the dislocated humerus to rest against his own side, whilst he supports it longitudinally as near as possible to the trunk of the patient. The surgeon then draws the articulation in a direction upwards and outwards, and, without using much force, the bone is immediately replaced.

Archives gén. de Méd. Juillet, 1836.

New Treatment of Strictures of the Urethra. By M. JOBERT,
Surgeon to l'Hôpital St. Louis.

HAVING ascertained the situation of the stricture, M. Jobert oils a bougie, and then dips it into calcined alum reduced to an impalpable powder: if the obstacle is considerable, he dips the bougie again in oil, and afterwards in calcined alum, so that there are two layers of alum upon the bougie. He introduces the instrument gradually, and presses it softly against the obstacle, and fixes it in the urethra by four tapes. Sometimes two hours are sufficient to conquer the obstruction, and allow the patient to pass his water; at other times, it does not succeed until the next morning. It is necessary to introduce the bougie, similarly medicated, for many days successively, until it reaches the bladder. M. Jobert has found the most obstinate strictures yield to this treatment: the inflammation it produced was moderate, and the discharge soon ceased.

[We have had no experience of this plan.]

Journal Hebdomadaire des Sc. Médicales, 10 Sept. 1836.

Obliteration of the Brachial Artery by compression of a Pad.
By J. P. DOR. (Thesis.)

A CHILD, twelve years old, was admitted into the Hôtel Dieu for fracture of the clavicle, which was treated by Dessault's plan, in which a cushion is placed in the armpit as a fulcrum for the humerus. After the third application, he complained of pain in the inner part of the arm; but the bandages were not removed until the thirtieth day, when the fracture was consolidated, but there was an eschar at that part of the forearm which was the fixed point of the lever formed by the humerus upon the cushion, and the brachial artery was obliterated. Sensibility and heat of the limb were preserved, but it was very stiff. Some days afterwards, pulsations gradually returned in the radial artery, and were perfectly restored when the child left the hospital, on the eschar healing.

Archives gén. de Méd., Juillet, 1836.

On Sulphuret of Lime in Diseases of the Skin. By DR. SAVARDAN.

DR. SAVARDAN has employed the following ointment in chronic diseases of the skin, for the last twelve years, with very great success: eight parts of lard are intimately mixed with one part of sulphuret of lime; and one drachm is directed to be rubbed into the palms of the hands for one quarter of an hour night and morning. Dr. S. has given short notes of thirty cases of chronic diseases of the skin of various kinds affecting different parts of the body, all of which gave way to this ointment, used in the manner specified. All were cases of long continuance, and the treatment was of course protracted; one or two yielding in rather more than a month, others in three, four, seven months; whilst in others the frictions were persevered in from one to two years.

Journal des Connaissances Médico-chirurgicales, Janvier, 1836.

MIDWIFERY.

A Case of Spontaneous Version. By Dr. FR. NIESS, of Vöhl.

A HEALTHY stout-made woman, æt. 21, who had had an easy and favorable labour eighteen months previously, enjoyed good health. On the 9th of October, a period which corresponded with her own computation, she first felt slight pains, during which the waters drained very slowly, after the lapse of several hours. A midwife was called in, but the patient would not permit her to make any examination on that day; observing, that the child would soon be born. During the night, when the pains had become stronger, the midwife insisted on making an examination, and, having discovered an arm-presentation, advised her to send for me: this, however, was not done until the following day at noon. When I arrived, about three o'clock in the afternoon, I found the left arm presenting, with the hand protruded from the vulva: the arm was greatly swollen and livid, the palm turned towards the right thigh of the mother. The os uteri had contracted on the arm, so that I could only pass a single finger round it. The womb was closely applied to the body of the child, and I could ascertain, without difficulty, that the head lay over the horizontal ramus of the pubis, towards the right side of the mother, and the feet towards the left side.

According to the midwife's account, the pains had been for several hours violent, frequent, and extremely severe; still the arm made no progress. The general state of the patient was favorable: she merely complained of considerable thirst, and expressed great anxiety about her condition. As I could not think of turning under such circumstances, I proceeded to take proper steps to diminish and regulate the pains. Having premised venesection, as the patient was very robust and plethoric, I gave repeated doses of aqua lauro-cerasi, ordered friction to the abdomen, with a liniment composed of olive-oil and tincture of opium, and tepid oleaginous injections to be frequently thrown up the vagina. Under the continued use of these means, the pains appeared, after the lapse of two hours, to diminish in intensity and severity, and the os uteri had become more yielding; and, as the woman became every moment more impatient and more importunate for assistance, I decided on attempting to turn the child. But, on this and subsequent trials, I found it impossible to pass my hand into the uterus; the irritation produced by attempting to introduce it renewed the pains, and the os uteri was so powerfully contracted on the arm of the child, that a forcible introduction of the hand would have been attended with great risk of rupturing the uterus.

Under these circumstances, and when I found the uterus began to grow more sensible to the touch, I determined to have the advice of another physician, and went to a neighbouring house for the purpose of sending a messenger to him. On my return, somewhat less than an hour afterwards, I was surprised to find the state of things greatly altered. The swollen livid arm, along with the shoulder, had been pushed forwards considerably, and the back had entered the pelvis. With strong pains, accompanied by convulsive tremors of the limbs, the back continued to descend for a quarter of an hour, while the shoulder remained fixed beneath the pubis; and a few minutes after the buttock was evolved, sweeping out under the back with a circular motion. The lower extremities came away almost at the same instant; soon afterwards the trunk, arms, and head; then the placenta, the expulsion of which was followed by a moderate discharge of blood, which soon ceased.

The child arrived at its full time, and of very considerable size, exhibited no sign of life: the left shoulder, and the parts in its vicinity, were greatly swollen and ecchymosed. The patient went on favorably afterwards: the external parts of generation were at first very much swelled, but she was able to leave her bed on the sixth day.

Neue Zeitschrift für Geburtskunde, Band iii. Heft 3.

On Injections through the Umbilical Vein in Cases of retained Placenta. By Dr. ALBERT, of Wiesentheil. *With Remarks, by* Dr. D'OUTREPONT.

CASE I. A baker's wife, aged thirty-six, during the first half of her sixth pregnancy, laboured under a slight discharge of blood from the vagina, which was completely arrested by venesection at the end of the fifth month. Towards the end of the thirty-ninth week of gestation, labour came on, and, after four hours, she was delivered of a healthy male infant. Three hours after birth the uterus again enlarged, and a violent hemorrhage took place, so that the patient was found in a state of syncope. Fearing the removal of the placenta would extinguish the remaining spark of life, Dr. Albert filled a small enema syringe with ice-cold water, and injected it through the umbilical vein, ordering the face and region of the heart to be diligently sprinkled and washed with the same. Seven minutes afterwards, he injected half the foregoing quantity. A cold shivering came on, with colicky pains in the abdomen, which disappeared on the supervention of a strong pain, accompanied by contraction of the uterus. While Dr. Albert was preparing to repeat the injection, a second pain came on, and the placenta was expelled. A quantity of coagula were then discharged, and the uterus contracted fully. The patient went on favorably.

CASE II. A girl, of extremely irritable nervous habit, became pregnant in her fifteenth year. During the first half of gestation, she suffered greatly from a constant train of nervous symptoms; during the second, she enjoyed better health than she ever had previously. Towards the end of the eighth month, labour came on: it was extremely slow and painful, and terminated in the birth of a stillborn child. Immediately after the birth of the child, she was attacked with urgent but fruitless desire to pass water, and pains shooting from the spine to the abdomen; the os uteri became spasmodically closed, and could not be opened by any force short of that which would endanger rupture. Dr. Albert, having tried all kind of internal and external antispasmodic remedies in vain, injected the following solution through the umbilical vein:—*Lactis tepidi, Infus. Belladonnæ, (ex ꝯss. parati,) āā ꝯv.; Extr. Opii Aquosi, gr. vj.; Extr. Hyoscyami, ꝯj.* (This was the quantity for each injection.) After the first injection the patient became tranquil, and in about twenty minutes fell into a quiet sleep, from which she awoke three-quarters of an hour afterwards, bathed in perspiration. A second injection was now made, and was followed by a copious and extremely offensive alvine evacuation, and the discharge of a large quantity of straw-coloured urine. The patient was greatly relieved; the abdomen became soft, and the os uteri had opened to such a degree that a whole hand could be introduced. On rubbing the belly with a piece of flannel dipped in *liq. ammoniæ caust. with tinct. opii*, strong after-pains set in, and the placenta was expelled. The after-stage went on regularly.

On the foregoing cases Dr. D'Outrepoint makes the following remarks:

"It was for some time a matter of surprise to me to meet so few published cases of injection through the vessels of the funis: reflection and experience have explained the cause. Cold injections through the vessels of the funis possess the disadvantages attendant on all cold injections into the uterus, producing the risk of sudden paralysis, inflammation, and ultimately degenerations of structure. Besides, the detachment of the placenta by cold injections is uncalled for where other and less dangerous means can be employed. This operation, however, may be necessary in certain states of the os uteri; and in this point of view Dr. Albert's second case is of great importance. One of the most disagreeable situations in obstetric practice is where the spasmodic contraction of the os uteri renders the extraction of the placenta impossible. When the usual means of allaying spasm fail, we are authorised in endeavouring to dilate the os uteri; but this is frequently difficult, and even impossible, and in such cases we have to dread the speedy dissolution of the patient. These are the states in which I have seen several women die, notwithstanding the advice and assistance of the most experienced physicians; and it is in such cases that salutary results are to be expected from injections through the umbilical vessels, as by this means we are enabled to bring the antispasmodic remedies to bear immediately on the uterus. The success of this practice is further borne out by the following case, recently observed.

"CASE III. A woman of hysteric habit had hysterical symptoms during delivery,

and gave birth to a stillborn child. After the birth of the child, the os uteri became spasmodically closed. The physician in attendance employed frictions over the abdomen with belladonna ointment, injected belladonna into the vagina and rectum, and gave opium internally, but all without effect. Having made a fruitless attempt to dilate the os uteri, I proposed the injection of an infusion of belladonna through the vessels of the cord. The result answered my expectations: after the second injection the spasm yielded, the os uteri dilated, the uterus contracted regularly, and the placenta was expelled.

"Still this experiment is liable to many difficulties. If the injection be made through the veins, the latter are frequently torn, and the fluid remains in the vagina without entering the uterus; when the veins are filled with blood it cannot be accomplished; and injection through the arteries requires a degree of care and attention which cannot be well observed in urgent cases of hemorrhage."

[We insert the foregoing paper more as affording the occasion for warning against, than for recommending the practice. The detail of Dr. Albert's second case is very unsatisfactory, as it does not appear that there was any particular necessity of putting extraordinary measures into execution. We by no means assent to the assertion that spasmodic closure of the os uteri, immediately after delivery, is a frequent occurrence: on the contrary, our experience makes us consider it as a very rare accident under such circumstances. With regard to the practice of injections by the umbilical veins, so long as only cold water or vinegar and water are the fluids employed, we believe it to be free from objection; but we would most strongly dissuade from venturing upon the use of those powerful agents which have been recommended and used by some of our continental brethren,—such as mineral acids; and to the use of belladonna we also entertain very decided objections, having seen it produce, in two instances, its poisonous effects, when introduced only in small quantity into the vagina.]

Neue Zeitschrift für Geburtskunde, B. iii. Heft 1.

Tubal Pregnancy, ending in Rupture of the Tube. By Professor BUSCH.

A LADY, aged twenty-four, had been married for several years. In her first pregnancy she aborted in the third month, and was attacked with considerable inflammation of the right ovary, from which she recovered under appropriate treatment. The second pregnancy, which, judging from the corpus luteum afterwards found, originated in the left ovary, went on regularly, and in due time she was delivered naturally of a child come to its full time. This occurred about a year before her death. About seven or eight weeks before death, she again conceived. Her pregnancy, which was recognized by the ordinary signs, was unaccompanied by any circumstance whatever indicating the existence of extra-uterine foetation. The usual symptoms appeared in regular order; there was no extraordinary pain, and she even went into company the evening before her death. She was there suddenly seized with pains, vomiting, and syncope: the two latter symptoms continued until death. The examination disclosed a rupture of the right fallopian tube, in which the foetus had been located, and the effusion of a considerable quantity of blood into the cavity of the abdomen.

This case is interesting in many respects, with reference to the doctrine of extra-uterine, and particularly of tubal pregnancies. The first thing that strikes us is the occurrence of the pregnancy in the right tube, as, in far the greatest number of cases of this description, it has been in the left. But it is particularly curious that the very symptoms which we are taught to look upon as the most constant,—namely, the distress from distention, and the consequent colicky pains, &c. as well as the discharge of dark-coloured blood,—were never observed in this case; and that the distention of the tube never produced any inconvenience up to the very period in which rupture took place. Finally, it is not uninteresting to consider the history of the former pregnancies, with reference to the cause of this tubal pregnancy. Although in most cases of extra-uterine foetation we cannot discover any thing to account for the anomaly, yet in this instance we find, in the history of the previous conceptions, circumstances which enable us to arrive at the probable

cause. The first pregnancy, which terminated in abortion, originated in the right ovary, and this organ was attacked with a considerable degree of inflammation, in which, it is very likely, the tube participated. The second pregnancy, which went on regularly to its termination, had its origin in the left ovary; and this third pregnancy proceeded from the right ovary again. These circumstances give a strong colouring to the presumption that, in consequence of the inflammatory affection, the right fallopian tube was either mechanically narrowed, changed in its texture, or deranged in its powers, so as to impede the passage of the ovum into the uterus, and thus give rise to tubal pregnancy.*

Neue Zeitschrift für Geburtskunde, Band iii. Heft 2.

On Putrescence of the Uterus. By DR. ALBERT.

OF this obscure affection of the impregnated uterus, first noticed by Boer, Dr. Albert gives the following cases:

CASE I. A soap-boiler's wife, fat, bloated, and of a phlegmatic temperament, who had been delivered safely twice before, and never had any remarkable derangement of health, became pregnant the third time, without suspecting it, owing to the absence of her customary symptoms. Towards the end of the ninth month, she became exceedingly weak; her face shrunk and had a clay-coloured hue; the belly was unusually tense and painful on pressure or during the motions of the child, and a dark-coloured, offensive, excoriating fluid was discharged from the vagina. She had scarcely any fever; the pulse was unusually slow and weak; towards evening, however, it became stronger and more rapid; an oppressive feeling of anxiety prevented her from sleeping at night. She had alternate constipation and diarrhoea, no appetite, and little thirst. This state of things continued for eleven days, during which the patient remained partly in bed and partly up. Labour now began, with violent attacks of syncope and slight spasms; the pains soon became strong, but ceased after the head had descended into the pelvis, so that it was necessary to deliver her with the forceps. Dr. Albert had scarcely retired, when he was again summoned, in consequence of the sudden supervention of severe hemorrhage. He found the belly tympanitic, the uterus again enlarged, and a discharge of dark, offensive coagula from the vagina. The state of the patient was utterly hopeless, and she died two hours afterwards. The placenta had come away shortly after the birth of the child.

Thirty-six hours after death, the body was opened. The peritoneum was partially injected, and contained a few ounces of reddish serum; the intestines, particularly the ascending and transverse colon, were distended with offensive gas, and the rectum had a partial reddish tinge. The uterus was externally healthy, its cavity contained clots swimming in a dark fetid fluid. At the left side of the os uteri, commencing at the orifice and running along the cervix up to the fundus, a portion of the internal membrane of the uterus, from seven lines to an inch and three-quarters in breadth, was of an ash-grey colour, and so much softened, that it could be easily rubbed off with the finger. Round this the sound membrane formed a fringed irregular margin. The subjacent parts, as well as the rest of the uterus, the tubes, and ovaries, were quite healthy.

CASE II. A joiner's wife, of small stature and red hair, was delivered (in her third pregnancy,) of a male infant, which died on the sixth day. On the evening of the seventh, she had shivering followed by perspiration, which was kept up by warm drinks, so as to produce great weakness. Towards morning, she had pain with a sense of oppression in the abdomen: this was removed by the diligent application of warm flannels. The following night, she had severe rigors, violent and agonising pain of the abdomen, and a discharge of ill-coloured, offensive lochia.

*The accuracy of the foregoing remark concerning the presence of the corpus luteum appears very questionable. From the researches of Dr. Montgomery, it appears that, even at five months after delivery the corpus luteum has lost so much of its characters as to be recognised only by a well-practised eye; and we very much doubt the possibility of detecting it where more than double that period had elapsed.—REV.

She complained of oppression about the chest, raved, and frequently attempted to get out of bed. Next morning, her neck, breast, and shoulders were found covered with a miliary eruption; diarrhœa set in, accompanied by excessive weakness; the belly was swelled, the pulse small and rapid, the breathing laboured, the countenance fixed. A dark slimy substance covered the vagina and os uteri, the patient became convulsed, and died six hours afterwards.

On opening the body, the peritoneum was found greatly injected, beset with miliary tubercles, and containing a great deal of serum; the uterus contracted to half its natural volume, externally healthy, internally covered with a dark-brown filthy substance. When this was washed off, the whole lining membrane of the uterus was found putrefied; the subjacent parenchyma of the organ appeared to be quite healthy. The right ovary was twice its natural size, of a livid colour, and firm feel; the back part of the vagina presented a highly inflamed patch about the size of a dollar.

CASE III. An inn-keeper's wife, of stout make and phlegmatic-sanguine temperament, in her second pregnancy, gave birth to two male infants. After delivery, (and even during gestation,) she felt extremely weak, became dejected and anxious, and had a clay-coloured hue. She took no notice of her friends or children, and gave the latter the breast merely because she found the milk troublesome. She slept much, but unquietly, and awoke with incoherence of speech; which, however, ceased when she was spoken to. On the evening of the third day, she complained of weakness, anxiety, and oppression about the præcordia; she had rigors, and the belly became painful, so that it was necessary to unloose her bandages; the secretion of milk diminished, the lochia, which were ill-coloured, and offensive, increased. On the fourth day she had diarrhœa and excessive weakness, and died on the following morning. No inspection of the body was allowed. The vagina and os uteri were covered with a dark filthy substance.

CASE IV. A delicate girl, aged sixteen, exposed to considerable privations, became pregnant, and was attacked in the seventeenth week of gestation (having previously enjoyed good health,) with sudden vomiting, constriction of the chest, violent pain shooting from the spine towards the os uteri, syncope, and a discharge of blood from the womb, followed by abortion. Nine days afterwards, while engaged in her occupation as a washerwoman, she was suddenly attacked with syncope, and had a violent hemorrhage from the uterus, after which she fell into a comatose state, and died next morning. At the fundus uteri, close to the entrance of the right fallopian tube, there was a patch about the size of half-a-crown, which had the appearance of viscid dirty-white mucus, and was easily separated from the sound parts by ablation.

Dr. Albert states that he does not know any symptom on which the diagnosis of this affection may be founded, unless the sudden and unusual sinking of the powers of life be admitted as such. At this period, however, the disease is generally beyond the reach of art; and it would be an unfortunate circumstance if experience did not afford us the means of detecting its existence at an earlier period. Dr. Albert thinks, that, as the disease is generally seated about the orifice and neck of the uterus, it may be detected at an earlier period by manual examination, and the use of the speculum. With respect to treatment, he thinks that, in the commencement, and where symptoms of inflammation are present, antiphlogistics may be of advantage; in the latter stage, and where putrescence has occurred, medicated drossils and pledgets (as successfully used by Boer,) are indicated.

Neue Zeitschrift für Geburtskunde, Band iii. Heft 2.

On the Signs of Pregnancy. By Dr. OSIANDER, of Göttingen.

It appears that, in Germany, it has been held, on the authority of Stein, who wrote in 1770, that the most certain sign of pregnancy is, that, when it takes place, the os uteri, which was before a transverse fissure, assumes a circular form. This doctrine quite superseded that of Hippocrates, ("quæcunque uterum gestant, his osculum uterorum clausum est,") which, till that time, had been taught in the schools, and which Haller had alone disputed. This assertion of Stein has

been propagated as truth by all subsequent German writers on Midwifery. The works of Siebold, Carus, and Hohl, all contain it. In France, on the other hand, Velpéau is the only writer who gives it even partial countenance. The English authorities have never made mention of this fact; and Dr. Oslander has discovered that it is quite imaginary. In its place, however, he has found another sign, to which he is inclined to attach great importance: this he calls the *vaginal pulse*. In pregnancy, he says, the *arteria uterina*, and its branch, the *arteria vaginalis*, must be necessarily increased in size, and their systole and diastole in some degree affected by the process going on in the parts which they supply. At that time he has felt the *arteria vaginalis* at the posterior border of the *columna rugarum anterior*, and has found its pulsation to be stronger and harder, and its caliber greater than usual. During imminent abortion and other morbid conditions, he has observed the vaginal pulse to be quicker than the radial.

Hannoverische Annalen, B. i. H. 2. 1836.

Successful Cæsarean Operation from an accidental Wound. By N. E. PIGNÉ.
(Thesis.)

A WOMAN, æt. 38, in the eighth month of her sixth pregnancy, was gored by a bull, whose horn effected a transverse wound, twenty-seven inches long, running from one anterior and superior iliac spine to the other. The surgeon found his patient cold and insensible, circulation imperceptible, the small intestines lying between the thighs, and covered by a quantity of coagulable blood. They were cleaned; and then was seen the rent in the uterus, from which a male child was spontaneously expelled, and lived for a fortnight. The funis had been ruptured by the fall of the child, and the placenta was extracted through the wound by the assistance of four fingers introduced into the cavity. The intestines were replaced, the edges of the wound in the abdomen brought together, and kept in contact by the interrupted suture. This was covered with charpie spread over with cream, and bandages were placed round the body. The patient did not become conscious until two days after. On the fifth day the lochia appeared. On the twelfth day an eschar, which had formed on the abdominal parietes, separated, and exposed the intestines for an extent of four inches. Nevertheless, by guarding this from the air and using tonics, it cicatrized. In a month she rose from her bed, and has lived twenty years since without any other inconvenience than a small hernia of the left side.

Archives générales de Médecine, Juillet, 1836.

FORENSIC MEDICINE.

Case of Death from violent Blows. By PROFESSOR VON SIEBOLD, of Göttingen.

[THE publication of authentic medico-legal reports has long been a desideratum in our medical literature; and we feel, therefore, that, in occasionally selecting articles of this description for illustration, we shall be acting up to the wishes of a large majority of our readers. It is, besides, in this way only that the practitioner can become acquainted with the importance of Medical Jurisprudence,—a science which, in spite of the obstacles to its cultivation in this country, is making daily and rapid advances. Without entering into a discussion of any of the numerous abstract questions which overload this department of medical knowledge, it is our intention to present to our readers those parts only which have a practical value.]

On the 20th December, 1833, three men of bad character, after a drunken quarrel at an inn, in which the deceased had interfered, left the place on their return home, having persuaded the latter to accompany them. The three men were armed with sticks, while the deceased was defenceless. After they had proceeded a short distance, they suddenly attacked the deceased, beating him severely on the head, body, and legs. Having knocked him down, they dragged him for some distance along the ground, and then renewed their violence. Besides using their sticks, they procured some

willow and birch switches, and with these they flogged the deceased, until his dress was torn from his person. According to the depositions, this ill-treatment continued for upwards of half an hour. The deceased then got up, and ran into a thicket, while the prisoners walked away without troubling themselves more about him. Shortly afterwards the deceased was seen by two witnesses, walking along the high road, his dress and person covered with blood. He was compelled to hold up his clothes; and walked in a stooping posture, with a feeble and tottering gait. To their enquiries, he stated that he had been beaten by the prisoners: he then sank exhausted, and in this condition, one of the men having procured a cart, he was driven back to the village whence he had come. Medical aid was immediately called in; but the deceased was then insensible, and in a very short time afterwards he expired.

A medico-legal examination of the body was made on the 22d; and no less than thirty post-mortem appearances are enumerated in the report. The principal of these need only be adverted to, without following the order in which they are given. The skin in the region of the occiput was much ecchymosed and swollen; and beneath was found a considerable extravasation of blood. On the vertex, there was an oblique wound, about one inch and a half long, which penetrated to the bone. Various parts of the face presented marks of bruises and lacerations, but not of a very extensive nature. The upper extremities were covered with marks of contusions from the shoulders to the hands, and there was a corresponding extravasation of blood in the cellular tissue beneath. Similar appearances were met with in the skin covering the glutei and the upper parts of the thighs. On removing the scalp, the bones of the cranium were found uninjured. The vessels of the dura mater and pia mater were much congested; but the brain itself presented no unnatural appearance. The viscera of the chest and abdomen were perfectly healthy. There was an inguinal hernia on the right side, which, on examination, was found to contain omentum and intestine; but these parts were in a healthy condition.

The examiners attributed death to apoplexy, manifested by the congested state of the cerebral vessels, and brought on, in their opinion, partly by external violence and partly by the pain, state of excitement, and fear, under which the deceased was labouring at the time the injuries were received. The ill usage which he had suffered was the sole cause of death: they therefore denounced the prisoners as his murderers. From a want of clearness and precision in this declaration respecting the cause of death, the case was referred to the Medical Faculty of G——, in order that certain queries might be answered. We subjoin these queries, and the answers returned by the faculty:—

1st. *The origin of the injuries found on the body of the deceased, their nature, &c.; taking into consideration the degree of violence and the weapons admitted to have been used by the prisoners?*

The wounds found on the deceased were contused and lacerated; they were situated chiefly about the head and lower parts of the body. The injuries were superficial; there were no fractures of the bones, nor was there any internal morbid change connected with them, with the exception of a congested state of the blood-vessels of the brain. The injuries arose from external violence, and that they were inflicted during life was proved by the extravasations of blood beneath the skin, and the swollen state of the affected parts. The violence used by the prisoners must have been great; and the weapons employed by them sufficiently accounted for the effects observed.

2d. *Was there only one mortal wound, or were there several mortal wounds on the person of the deceased? a. Which were mortal? b. How were they produced?*

In giving an answer to these questions, we must remember that we have to deal with external lacerations and contusions, and one internal morbid change, viz. a congested state of the cerebral vessels. The lacerations and contusions were produced by the direct application of violence to the parts in which they existed; and the cerebral congestion must be regarded as a consequence of the violent contusions on the head. It was here, indeed, that the most serious external injuries existed; for the marks of violence on the extremities and body of the deceased were of a comparatively unimportant nature. Injuries to the head are often followed by the most dangerous results, even where they appear to be small and insignificant. The force employed in their infliction must always be taken into consideration, although that force may not

produce more than a slight external injury. In the case of the deceased, the violence is proved to have been greater than the mere extent of the injuries about the head would appear to indicate; while the congested state of the cerebral vessels is a proof that the contents of the cranium were severely affected by it. Among the most formidable consequences of blows on the head, especially when inflicted by blunt weapons, as in the case before us, may be mentioned concussion of the brain. This may either destroy life on the spot; produce loss of sense and motion, followed sooner or later by a fatal result; or, under the most favorable circumstances, these symptoms will slowly disappear, and the individual recover. Concussion may prove fatal without leaving any visible changes in the brain; so that when death speedily takes place from violent blows or falls on the head, and, on inspection, no morbid appearances are met with, it is perfectly justifiable to refer death to concussion. In the case of the deceased, however, marks of cerebral disturbance were discovered; there was a general congestion of the cerebral vessels; and this, in our opinion, must be ascribed to the violence used. This congestion must have operated by inducing a state similar to apoplexy, and have destroyed life by fatal compression.

a. The injuries to the head generally must be regarded as the cause of death, the external violence being adequate to account for a fatal result; and, although the lacerations and contusions produced were, comparatively speaking, of slight extent, the length of time during which the ill-treatment lasted must be considered as having had a considerable influence in rapidly inducing fatal consequences. While, however, the death of the deceased, is referred to the injuries of the head, the violence inflicted on the back may be admitted to have seriously affected the spinal marrow, and to have assisted in destroying life. No inspection of the spinal column was made; or, had the attention of the examiners been directed to this part, it is not improbable that some such changes as those met with in the coverings of the brain would have been found.

b. The answers already given afford a sufficient explanation of the manner in which these wounds on the person of the deceased were produced.

3d. *Of which wound did the deceased die?*

The answer to this question is fully given in the preceding observations. The deceased died from the effects of the violent blows inflicted on his head.

4th. *If no wound of itself was mortal, whether the united effects of the different wounds observed on the deceased were sufficient to account for the destruction of life?*

The solution of this question is in great part involved in that of Question 2. The description of the wounds is sufficient to show that not any one was of itself mortal; but the combination of many blows, and the repetition of the violence upon so important a part of the body as the head, must be looked upon as the cause of a fatal result. Among the blows on the head, those inflicted on the occipital region, from the swelling and extravasation there observed, appear to have been the most serious.

5th. *Is death to be ascribed solely to the ill-treatment experienced by the deceased, or to this, combined with the fact of his having been in the first instance without medical assistance, or to any other accidental circumstances?*

Although it is possible that the life of the deceased might have been preserved, at least for a time, had medical assistance been afforded; yet, for that purpose, a medical practitioner must have been on the spot; and, even then, it is very doubtful whether there would have been any hope of saving his life; since injuries to the head are among the most fatal, and often insidiously destroy life, sooner or later, in spite of the best surgical treatment.—The question may therefore be answered, by asserting that, so far as all medical experience extends, the death of the deceased is to be ascribed solely to the ill-treatment; and that it is in the highest degree improbable, even had medical assistance been instantly afforded him, that he would have recovered. The only accidental circumstance which might perhaps be regarded as having added to the fatal effects of the injuries is the fact of the deceased having been transported some distance in a cart over a rough country-road: but this must be considered as irrelevant to the necessary and general effects of such injuries; the more especially since every attention and care was paid to him after he was discovered, and that, when placed in the cart, the depositions prove that he was already in a hopeless condition.

[This interesting case demands some remarks from us. In the first place, it is clear that the death of the deceased was due to external violence alone; but we do not

feel quite satisfied with the manner in which the faculty attempt to explain how the violence operated. In their answer to Quest. 2, they seem to intimate that death was partly due to *concussion* of the brain; but they subsequently declare that the congested state of the cerebral vessels indicated an apoplectic condition, terminating in fatal *compression* of the organ. Now, it does not appear to us that this can be regarded as a case of fatal concussion in the ordinary sense in which that affection of the brain is understood. According to the meaning attached to this term by our first surgical authorities, concussion is indicated by insensibility and derangement of the bodily powers *immediately succeeding the injury*. But the deceased, in the case before us, was able to run away from the prisoners so soon as they left off beating him; and he was afterwards seen walking along the high road. The circumstance of the loss of sense and motion coming on some time after the receipt of the violence, would appear to justify the opinion expressed by the faculty, that death was owing to *compression* of the brain; but the absence of sanguineous effusion, and at the same time the want of the most prominent symptom of compression, *stertor*, which, had it existed, would hardly have been omitted in the report, tend to throw a doubt upon the correctness of this opinion. We are aware that the absence of *stertor* is not always a proof of there being no compression; since the cases collected by Morgagni show that, even where blood had been effused in considerable quantity, *stertor* was not always present. This, however, is the exception to the rule. (*Cooper's Surgical Dictionary*, art. *Head*.) It appears to us that in this case, death was referrible to the shock produced on the system through the medium of the brain and nerves, by the continued and repeated violence. This explanation gives us no better idea of the manner in which the violence caused death than that assigned by the faculty; but it has the advantage of avoiding the use of terms which have been long applied to other conditions of the brain.

We learn from this case, what it will be highly important for the medical jurist to bear in mind, in the exercise of his duties; namely, that violence may prove fatal to life without leaving any traces of its effects on the organ primarily affected, (the brain,) and without being indicated by any considerable external marks. It is acknowledged by the faculty, that not a single external wound could be regarded as mortal, or of itself sufficient to account for death; and, therefore, had the body of the deceased been discovered dead, without any history of the ill-treatment to which he had been subjected during life, considerable embarrassment might have existed in the minds of the examiners, especially since the only morbid change observed was congestion of the cerebral vessels. We do not mean to deny that a legitimate inference might have been drawn, even under these circumstances, that the deceased had died from violence to the head; but we believe that it is too much the custom for practitioners in this country to search for some *specially* mortal wound; and, where they do not find such a wound, to abandon the case altogether, as presenting difficulties which medical experience is incapable of surmounting. This sort of prejudice notoriously exists in the minds of our legal authorities, from the coroner to the judge: and thus we find generally, in all investigations relative to murder and manslaughter from wounds, a question is constantly put to the witness, as to which particular wound was mortal. If the witness hesitate to give a positive answer upon this point, the court are apt to acquire a notion that he is not sufficiently informed in his profession. The truth is, a multiplicity of injuries, long continued, although productive of only slight marks externally and internally, are as capable of destroying life as if an individual were at once wounded in a vital organ. This observation particularly applies to wounds of the head; and the case before us is only one of a hundred instances, which might be cited to show that he who sought for some organic lesion essentially mortal to explain death, would be infallibly disappointed. There must always be on these occasions a sort of commendable diffidence in the mind of a practitioner, arising from the obscurity of the subject which he is called upon to investigate; but, let him attend well to the records of experience, and he will feel himself perfectly justified in divesting himself of that which is a mere popular prejudice, and only calculated to mislead him. Our advice then is, that, should such a case as that which we have here presented become a subject of criminal investigation, all circumstantial evidence being wanting, the

body should be carefully inspected, in order that it might be seen whether there were any natural causes to account for death; and, in the absence of these, the practitioner should not hesitate to refer death to violence, merely because no single wound would, in a surgical point of view, be pronounced mortal. In pursuing an opposite course, as witnesses are sometimes in the habit of doing at coroner's inquisitions, it must follow that numerous investigations, which might probably lead to the development of crime, will become smothered in their origin.

For further information on the highly important subject of *Wounds*, in a medico-legal sense, we refer to the last four chapters of Mr. Taylor's excellent *Elements of Medical Jurisprudence*; a work which should be in the hands of every practitioner.

Henke's Zeitschrift für die Staatsarzneikunde. Erlangen, 1836.

HYGIÈNE.

Cases of Death and Disease, produced by unwholesome Dwellings and Metallic Exhalations. Collected by MM. D'ARCET and BRACONNOT.

CASE I. Gillet, a cabinet maker, æt. 35, of a good constitution, lived, with his wife and three children, in a house at Nancy, which he had recently purchased. The whole family had the same symptoms as himself: pains in the head, nausea, lassitude, difficult digestion, almost constantly colic, diarrhœa, swelling and numbness of the limbs, extreme exhaustion, and depression of spirits. His workmen were not ill, nor was a woman who took her meals with him, and remained in his house during the day, but who did not sleep there. His neighbours also were not affected. M. Braconnot was requested to investigate the case. It was suspected that the water of his well might have become impure by infiltration, as his next-door neighbour, M. Noel, was a manufacturer of coloured paper, and made use of large quantities of arsenic and oxide of copper in the preparation of the green of Schweinfurt; but an accurate analysis proved that this was not the case, and that the water was wholesome. His apartments on the first floor were clean, commodious, and sufficiently open in front; but in his shop there was a large damp spot on the floor, which he said corresponded to a dark outhouse beneath, belonging to M. Noel's manufactory. On going down into it, it was found to be as dark as a cellar, only lighted with a small opening, three or four feet square in the roof. It had not been used for fifty years, but for a long time all kinds of rubbish had been thrown into it from the manufactory, through a little obscure casement. In this outhouse was a well, only a short distance from the one belonging to Gillet, and beneath his sleeping room: on letting down a candle, it burned at the surface of the water, but bubbles of gas were seen spontaneously disengaged, and they became very numerous on agitating the water by throwing in stones: it was hydrogen gas, like that in marshes, and arising from the decomposition of the organic matters thrown into the well. The water did not appear to be worse than that in stagnant marshes. This undoubtedly (says M. Braconnot,) was the cause of the disease. M. Noel, who had lived in his manufactory thirty years, informed him that, twenty-five years since, Grandidier, a robust and athletic man, died of the same disease as Gillet, in the same house; also that the wife and three children of Royer, who lived there fifteen years ago, died with similar symptoms; Madame Mathieu also, and her young daughter, two years ago, and Laurent and his two nieces, died in the same house, from the same malady. However, twelve years before, a family lived there two years without illness. M. D'Arcet thus accounts for the entrance of the noxious exhalations:—In winter, (the month of November was mentioned,) a fire is made in M. G.'s rooms; the exterior air enters the outhouse by the opening in the roof, is infected, and is drawn into the apartment by the draught of the chimneys.

CASE II. M. D'Arcet had to examine a lodging in which three young and vigorous men had died in succession in a few years. The lodging consisted of a bedchamber with a chimney, and an anteroom without ventilation. The descending pipe of a wa-

ter-closet passed down the angle of the alcove, by the side of the head of the bed, and the wall in this part was slightly infiltrated: notwithstanding this, there was no sensible smell in the room, although it was small and low. M. D'Arcet could only attribute the mortality in the lodging to the slow action of the emanations from the pipe, which were, particularly during the night, drawn around the head of the bed and into the room by the draught of the chimney.

CASE III. M. D'Arcet observed the health of one of his acquaintances to languish and decline, although young and of good constitution; and he requested him often to examine his lodging, and even to quit it: at last his friend besought him to investigate the cause of the uneasiness he felt whenever he remained at home. M. D'Arcet found that the room was often filled with the gaseous products of the combustion of carbon. The chimney of his parlour, in which he seldom had a fire, was common to a kitchen on the story above; and the carbonic acid gas, which descended by the chimney of the parlour, was drawn into the bedroom by the draught always kept up in its chimney at night, by a fire in winter, and by the heat of the room (which was small,) in summer. The cause of the evil being known, it was easily remedied by making a good chimney in the bedroom, placing a trap-door in the chimney of the parlour, and also sand-bags at the door separating the two rooms.

CASE IV. A whole family was salivated, they knew not how. They recollected at last that a barometer had been broken, and the mercury put in a plate, which was placed in a cupboard. This was removed, and the disease disappeared. The least ventilation would have prevented so slight a cause from producing such severe effects.

CASE V. A prefect of police requested M. D'Arcet, at six o'clock in the morning, to examine a room in which two females had been asphyxiated during the night. He easily recognized the presence of carbonic acid, which he found had entered the bed-chamber by the stove of the dining-room, where no fire had been made for a long time; that it had traversed the dining-room, and had penetrated the bed-room owing to the draught of the bed-room chimney. The owner of the house, on being questioned, said that the chimney into which the pipe of the stove passed belonged to the room of a dentist who occupied the first floor. M. D'Arcet knocked at the dentist's door, and he opened it himself: he had his pincers in his hand, and had been spending the night in making artificial teeth, for which he used a furnace heated with charcoal, and had thus asphyxiated the two ladies lodging above him.

CASE VI. A whole family became ill from the vapour of mercury, issuing from the workshop of a gilder. The chimney of the stove in their lodgings communicated with the chimney of the gilder, and a draught from a chimney in the rooms of the former drew the mercurial vapour through the chimney of the stove, and diffused it.

M. D'Arcet says he could recite many other instances from his own knowledge: these show that care should be taken in choosing the place from whence the air is drawn for the necessary draught of the chimneys of an apartment, which requires plenty of pure air, and not air from an infected place, such as the tube of a water-closet, an unwholesome court, neighbouring chimneys, &c. The least ventilation which is constant, whether from below upwards or from above downwards, is sufficient to purify a lodging, but a constant stream of pure air is necessary, cold in summer, and hot in winter.

CASE VII. Whilst M. Vauquelin lived at l'Ecole des Mines, his house was kept by two sisters of Fourcroy. These ladies, who kept a dog, cat, and canary birds, went to spend two days in the country with M. Vauquelin; gave the animals plenty to eat and drink, and shut them up in the antechamber. M. Vauquelin found, on his return, the antechamber full of smoke, and the animals dead: the smoke had penetrated into the apartment by the tube of the stove, and came from a chimney on the upper story. The smoke had either fallen when it cooled, or it had been brought into the room by the draught of a chimney of M. Vauquelin's, the tube of which might have been heated either on the roof by the sun, or by its proximity with a neighbouring chimney in which there might have been a fire.

CASE VIII. M. Berthier was requested to attend a man named Salomon, his wife and child, who were all violently salivated; as also a young workman, who worked

during the day with Salomon. It appeared, on enquiry, that M. Husson, a gilder, lived in the story below, and his chimney was the same as Salomon's. With this chimney M. Husson's furnaces communicated: he was in the habit of placing on the furnaces the articles he manufactured, in some of which mercury was used; the action of the fire volatilized the mercury, which entered the chimney, and was drawn by the draught into the pipe of Salomon's stove, where it was deposited, to be again volatilized when the stove was heated; the vapours then were diffused through the room, and produced the serious effects mentioned. To test the presence of mercury, a piece of gold was rubbed against the sides of the stove, which was at once silvered. To remedy this the stove was removed, and the hole in the chimney stopped: prudence probably demanded that the chimney itself should have been condemned.

[The perusal of this paper will be of some advantage if it directs attention to an important set of causes of disease, which are too often neglected by the medical practitioner, who directs his sole attention to the cure of the actual malady. The cause of profuse salivation of a whole family is not likely to be overlooked; but less prominent, though not less important, cases of impaired health from various noxious exhalations very frequently are, as we know from experience. It should be recollected that these cases happened in France, where numerous families live in one house; stoves are very frequent, and charcoal much employed in heating them.]

Annales d'Hygiène, Juillet, 1836.

MEDICAL STATISTICS.

Statistics of Calculus in Austria.

THE following tabular views are extracted from VON WATTMANN's recent Treatise on Lithotritry and Lithotomy, (*Ueber die Steinzerbohrung und ihr Verhältniss zum Blasenschnitte*. Wien, 1835. 8vo.) and are founded on official documents supplied by Professor Raimann, of Vienna.

I. *Calculous Cases in the Austrian Dominions, from 1820 to 1830.*

Provinces.	Whole Population.	No. of Calculous Cases.
Vienna and Lower Austria, including the military,	1,206,520	... 49
On the Ems and Salzburg	835,043	... 18
Galitzia	4,316,086	... 19
Moravia	2,046,787	... 39
Bohemia	3,582,150	... 106
The Tyrol	780,399	... 11
Styria	854,720	... 10
Illyria and Maritime States	1,154,885	... 31
Venice and the Eight Provinces	2,032,339	... 278
Milan and Lombardy	2,400,000	... 794
Dalmatia	383,600	... 49
Total	19,592,529	... 1,449

Proportion, one case in 13,531 of the population.

II. *Cases of Lithotomy in the Surgical Clinic of Vienna, during thirty-five years.*

Age of the Patients.	No. operated on.	Deaths.
From 1 year to 10	71	7
— 11 — 20	42	3
— 21 — 30	30	9
— 31 — 40	12	3
— 41 — 50	6	3
— 51 — 60	11	6
— 61 — 68	8	3
Total	180	34

All the patients admitted, except four, were operated on. The above table gives the following results :

Proportion of deaths to the whole operations, 1 in $5\frac{1}{4}$
in children . . . 1 ... $11\frac{3}{10}$
between the ages of 20 and 30, 1 ... $3\frac{8}{11}$
— 50 and 60, 1 ... $2\frac{1}{11}$.

Of the thirty-four deaths, the following are given as the causes:—Gangrene of the bladder, 6; Phthisis, or hectic fever, 5; Debility, 6; Exhaustion from Suppuration, 3; Nervous shock, 3; Typhus, 6; Convulsions, 1; Suppuration of the Kidneys, 1; Cholera, 1.

III. General Chemical Constitution of the Calculi in the Vienna Collections.

Nature of the Calculus.	In the Pathological Museum.	In the University Museum.	In the Joseph Museum.	In V. Kern's Collection.	In Watmann's Collection	Total
Phosphatic .	32	26	27	28	26	139
Oxalic acid, with phosphatic envelope	3	16	5	8	8	40
Oxalate of lime .	4	12	3	1	7	27
Oxalic acid, with uric acid envelope.	9	3	...	3	5	20
Uric acid .	11	9	10	10	11	51
Number of patients and calculi .	59	66	45	50	57	277

Schmidt's Jahrbücher der Gesammten Medicin, B. x. H. 3, No. 5, 1836.

Medico-Statistical Report of the Deaf and Dumb in the Dutchy of Brunswick, in the year 1835. By Dr. MANSFELD.

(1.) THE whole population of the dutchy, 253,232; the total number of deaf and dumb, 125; consequently, the proportion is 1 in 2,026. (2.) Of the 125, 60 are males, and 65 females. (3.) In Prussia, the proportion of deaf and dumb to the population is 1 in 1,426. (4.) Nearly the fourth part of the whole number had one or two brothers or sisters similarly affected. (5.) For the most part, these persons belong to the middle and lower classes; their parents being generally poor. (6.) The health of these persons is in general good; those residing in the vicinity of the Harz are said to be scrofulous, and five of the whole number are idiotic. In two cases only could the deaf-dumbness be traced to distinct causes; viz. one as the consequence of fright, the other of miliary fever. (7.) Almost all the deaf-dumb in the dutchy have the benefit of education; a circumstance very creditable to the country, and which the author, with a just pride, contrasts with the great neglect of the same class of persons in Austria, in which vast empire it appears that, out of 20,639 individuals labouring under this infirmity, only 400 are placed in houses of instruction, (ten in number;) all the rest being left without assistance. When it is considered that, of this number, the fifth part at least are susceptible of instruction, there is evidently here a great neglect of the duties of humanity. (8.) With the exception of those who are yet too young to work, or who are mentally incapable of gaining their livelihood, or are supported by relatives, (57 in all,) or who are in the course of instruction, (number not mentioned,) all the others are gaining their own livelihood as artisans and labourers. (9.) Dr. Mansfeld calls the particular attention of teachers to the fact, that, in many cases, the inability to acquire the sound of particular letters or words depends on physical defects of the organs of speech, and not on mental incapacity. In proof of this he instances nine

cases among the children at this time in the Brunswick Institution, who labour under some defect of this kind. The defects mentioned are the following:—Imperfect uvula; thick tongue, without frænum; large tongue, long and irregular uvula; tongue deficient in muscularity; tubular palate, imperfect uvula; enlarged tonsils; flat and irregular palate; general defective size of mouth, large tonsils; imperfectly developed larynx.

Hannoversche Annalen, B. i. H. 4. October, 1836.

VETERINARY MEDICINE.

On the Influence of the Epidemic Constitution upon Animals, observed during the prevalence of the Epidemic Cholera. By THE FACULTY OF MEDICINE AT VIENNA.

THE reports sent from the different provinces of Lower Austria, Moravia, Galicia, and Bohemia, respecting the influence of the Cholera Epidemic on animals, and especially the domestic class were laid, by order of the *Imperial Government*, before the faculty of Vienna, for the purpose of establishing a judgment on the point. The medical college published the following remarks, dated February 14, 1834.

It has been proved by innumerable facts, that, during the reign of the epidemic, the general health of animals suffered in various ways, which indisposition was too generally spread and too closely connected with the epidemic character of the cholera to admit of its being traced to other accidental causes, or of its being considered unconnected with the prevailing epidemic constitution. Even the symptoms of the disease, and the pathological changes observed upon examining the animals after death, exhibited a striking similarity to those produced by the human cholera. Hence arises the important result: “that the Asiatic cholera is a purely epidemic disease;” that is, a disease depending upon a peculiar epidemic constitution highly injurious alike to men and animals.

Although this decision may appear objectionable to those who maintain that the disease depends purely on contagion, still opinions merely hypothetical must give way to the fixed laws of nature, and the incontrovertible experience founded upon them; and the absurdity of attributing this scourge of society to the opening of a letter or a sack of wool, must be apparent to any one who considers its irresistible progress. Although the peculiar agency is still problematical, yet it appears satisfactorily proved not to depend exclusively on the condition of the atmosphere, since animals that live in water only, as fish, crabs, leeches, &c. died in great numbers at the time of the cholera pandemic.

Amongst domestic animals, the influence of the epidemic constitution was less observed in those whose internal organization differed most from the human, and especially in the organs of digestion; for instance, the ruminating animals. As in this latter class vomiting cannot take place, so it is hardly possible that any affection bearing the form of pure cholera can be imagined. Dogs and cats frequently died under appearances of cholera; and hares particularly, among wild animals. But birds seemed to suffer most, and the disease was observed to bear a great similarity to the human cholera. Upon the whole, the meteorologic changes which took place during the epidemic diarrhœa, seemed to be particularly obnoxious to the constitution of birds; as the fact that sparrows, crows, and singing birds appeared very rarely, or not at all, was amongst the most common occurrences. Fish were observed to be affected particularly in those places where the cholera raged with the greatest virulence and where there were great inundations.

Jahrb. d. Oest. Staates, 1835.



PART FOURTH.

Selections from the British Journals

(FOR THE QUARTER ENDING NOV. 30, 1836).

ANATOMY, PHYSIOLOGY, AND PATHOLOGICAL ANATOMY.*On the Anatomy of the Fifth Nerve.* By B. ALCOCK, M.B.

THIS paper was communicated to the British Association at Bristol. It contains a brief account of some particulars respecting the 5th nerve, which the author believes to have been hitherto unobserved. These particulars are the following :—1. Both packets of the nerve can be traced to the same point of attachment, behind the middle crus of the cerebellum, in the angle formed by the three crura, behind and beneath the middle, above the inferior, and before the superior. 2. The point of attachment presents, when the surrounding portion has been pushed away from it, a small eminence which is imbedded in the substance forming the floor of the fourth ventricle, separated from the interior of the chamber by a thin lamina only. 3. Besides the fasciculus discovered by Rolando, Dr. A. has found a second and smaller fasciculus, which descends from the point of attachment, behind and within the inferior crus, and, between the posterior pyramids, enters the posterior fissure of the bulb and cord, and can be traced for some way along the back of the anterior column of the cord, into which it seems ultimately continued. Dr. A. observes, that it is contrary to our general impression that two portions of a nerve, supposed to have distinct functions, should be attached to the same point of the cerebro-spinal axis; and that the existence of a cord of communication with the anterior as well as the posterior column of the spinal cord removes any difficulty which might be created by the distinction in function between the two.

*Dublin Journal, Nov. 1836.**On the Mechanism of Bruit de Soufflet, or Bellows-Sound.* By D. J. CORRIGAN, M.D.

IN February, 1829, Dr. Corrigan published in the *Lancet* an explanation of the manner in which this important sign is produced; and he now follows up the theory he advanced, and supplies its deficiencies. His account of the explanations which have been given, and his reasons for dissenting from them, we must pass over, and confine ourselves to his own theory, which is this :—In a natural condition, all the arteries are kept tensely distended by blood, and at each contraction of the heart the additional quantity of blood sent forward impels before it, “*en masse*,” the blood already contained in the vessels; but, whenever the “*bruit de soufflet*,” or its varieties, “*bruit de rape*, *de lime*,” &c. are heard, this equable flow of blood and tense state of the vessels is interfered with, and a current-like or rippling motion of the blood is produced, which tends to excite vibrations in the vessels or arteries through which it passes; and, as the vessels are less tense, they are thrown more easily into vibrations by the irregular currents. Thus, a rippling motion of the blood, and a flaccid state of the vessels, are the mechanical conditions essential to the production of the sound. The circumstances under which the sound is heard are very various, and apparently contradictory: thus, it is heard in narrowing and in permanent patency of the cardiac orifices; in varicose aneurism; in the uterine vessels during pregnancy; in the heart and vessels after excessive loss of blood; momentarily in hysteria, &c., when the heart is sound; and it can be produced at will in any large artery, as the carotid or femoral, by pressing upon it to a certain degree with the

finger or edge of the stethoscope. Dr. Corrigan endeavours to show that, in all these cases there is a rippling motion of the blood and a flaccid state of the vessels, and therefore that his theory explains them all. Thus, when the femoral artery is pressed with the finger, it becomes comparatively flaccid beyond the narrowed portion, as the supply of blood is partially cut off, and therefore is insufficient to keep the artery tensely filled; and at the same time the pressure produces a rippling motion of the blood, by causing its particles to move with different degrees of velocity; those in the centre being impelled with the greatest rapidity, whilst those towards the sides are moved with varying velocities; currents are produced which impinge upon the flaccid sides of the artery, and cause corresponding vibrations. In aneurism of the thoracic aorta, with diseased aortic valves, the condition of the parts is well calculated to produce the sound; for the aneurismal sac is not kept distended, but becomes flaccid, from the imperfect aortic valves allowing a certain quantity of the blood expelled from the ventricle to pass back again. In tense aneurism there is pulsation, but no *bruit de soufflet*. Contraction of the auriculo-ventricular action of the heart is that lesion with which this sound is most frequently connected; for the blood rushes through the narrow orifice produced by the contracted state of the loose edge of the mitral valve into the relaxed and flaccid ventricle, and, both mechanical conditions being present, the sound is produced. In permanent patency of the mouths of the aorta, part of the blood, after each contraction, returns into the ventricle, and the aorta and its large branches become in some degree flaccid. In pregnancy, the *bruit de soufflet* is heard where the placenta is attached. The arteries of the placental portion of the uterus are much enlarged, compared with the trunk that supplies them; and thus, in the intervals between the contractions of the heart, become somewhat flaccid, and in this condition receive the next dash of blood from the supply trunks: both conditions essential to the *bruit de soufflet* are therefore present. In varicose aneurism, a jet of blood passes into the vein at each pulsation, throwing the blood of the vein into irregular currents. After excessive loss of blood, the arteries are not completely filled with blood; it does not, consequently, move in its natural equable course, and this sound is produced. In hysteric and nervous persons, this sound is often heard for a short time, and is caused by irregular action of the heart and arteries producing an alteration in the motion of the blood, and a deviation from the natural tension of the arteries.

Dr. Corrigan illustrates his theory by several experiments. He fixed an elastic tube into an elevated vessel of water: whilst the water flowed through the pipe and equally distended it, no sound was produced; but, on pressing the tube with the finger, so as to diminish the supply of water beyond the point of pressure, the sides of the tube became flaccid, the fluid within was thrown into irregular currents, and a loud *bruit de soufflet* was produced. Bouillaud, in alluding to this experiment, attributed the sound to increased pressure on the fluid; but, to obviate this objection, the experiment was varied by attaching a smaller tube, of half the area, to the end of the first flexible tube: in the short time that the flexible tube was filling with water, its sides were flaccid, and the *bruit de soufflet* was heard; but, as soon as it was once filled, the water flowed through without any noise. The same effect was produced when a ligature was tied round the flexible tube, to diminish its caliber one-third. In both cases the sound was heard, and ceased to be heard, in exact accordance with the law laid down. Other experiments are given, but we must refer our readers to the excellent paper itself.

The Dublin Journal, November, 1836.

On the Vital or Self-moving Powers inherent in the Blood. By R. M. HAWLEY, M.D.

At the meeting of the British Association held at Dublin, in 1835, Prof. Alison read a paper "On the Vital Properties of Arteries leading to Inflamed Parts," in which he attempted to prove by experiments that "a living or self-moving power is inherent in the blood itself, acquired by its purification in the lungs, and in some degree retained through its whole circuit." In the present short paper, Dr. Hawley adduces further evidence in support of these views, and considers that the following propositions are established by Dr. Alison's researches and his own:—1. That the motion of the blood from the branches of the pulmonary artery to the left auricle

principally depends, neither on the systole of the right ventricle, nor on the tenacity of the vessels, nor on the respiratory motions, but on a living self-moving power acquired by the blood, when renewed in the lungs. 2. That the same living power inherent in the blood is also a material cause of its motion through the capillaries of the aortic system. 3. That, in acute inflammation, this vital self-moving power of the blood is morbidly increased; while the tonicity of the capillaries of the inflamed part is diminished. 4. That some formidable diseases of the heart, lungs, and brain, usually considered primary, may be referrible to an altered state of this vital power of the blood; and perhaps oftener to its diminution than its augmentation.

Edinburgh Journal for October, 1836.

Determination of the Question, which are the Nerves of Taste? By B. ALCOCK, M.B.

THIS is a long and valuable paper, which was read at the meeting of the British Association, in 1836. It contains the results of many experiments made by the author, and critical remarks on the views of others. We regret that we must content ourselves with the bare enunciation of the inferences which the author has deduced from his experiments and reasonings, which are the following:—1st. That Taste is a special sensation. 2d. That it enjoys two media of perception. 3d. That its media of perception are the glosso-pharyngeal nerves and the lingual and palatine branches of the fifth nerves. 4th. That the glosso-pharyngeal nerves are not its special media. 5th. That the latter nerves both are sentient and influence muscular action; and 6th. That the speno-palatine ganglion and chorda tympani have no influence upon either the existence or perception of the sense.

Dublin Journal, Nov. 1836.

On the Hemorrhagic Hepatization of the Lungs. By R. KNOX, M.D.,
Lecturer on Anatomy in Edinburgh.

DR. KNOX's object in this short paper is to define more strictly the disease termed *pulmonary apoplexy* by Laennec, and to point out the true nature of the pathological state termed "the soft pulpy tubercle of the lungs" by Dr. Baillie. He wishes the term *pulmonary apoplexy* to be restricted to that state where there is an actual rupture of vessels, where there is "effusion of blood into the common cellular tissue of the lungs, and not merely the engorging of blood-vessels, or of the bronchial tubes." The affection described by Dr. Baillie, Dr. Knox believes to be simply this true pulmonary apoplexy, seen at some distance of time from the original attack. Dr. K. doubts whether Laennec ever witnessed a case of true pulmonary apoplexy, and suspects "that the pathological state which he had so designated was merely a hepatization caused by the gorging of the minute branches of the pulmonary artery with blood." This is what Dr. Knox terms *Hemorrhagic Hepatization*, and which he describes as follows, from a case recently witnessed by him: "The lung, being cut across, simply showed large portions of a deep red or even purplish colour, resembling masses of venous blood, and generally circumscribed. Notwithstanding the extreme resemblance these altered parts of the lung bore to apoplectic effusions, careful examination with a good glass totally disproved the fact of any extravasation. The tissues were hepatized, but unbroken, and much gorged with blood. From the vessels, when squeezed, fluid blood was forced out, even after the lapse of several days, and the whole appearance strikingly resembled, at first view, the *corpus cavernosum* of the penis. The smaller divisions of the bronchial tubes were filled with a gelatinous rose-coloured effusion; and this was present to whatever extent these tubes could be traced with a tolerably powerful magnifying glass; but this effusion was not present in the larger divisions of the bronchi. The minute subdivisions of the pulmonary artery were completely filled with a very dense coagulum, as far as it was possible to trace them, and their tunics showed numerous ossified specks. The pulmonary veins were empty, and quite round."

Edinburgh Journal, October, 1836.

PRACTICAL MEDICINE AND THERAPEUTICS.

On Typhus Fever in Britain compared with that in Paris and Geneva.

By Dr. H. C. LOMBARD, of Geneva.

DR. LOMBARD states that he came to this country after having studied fever both in Paris and Geneva for seven years, fully convinced that, in all cases of continued fever, there was enlargement or ulceration of the mucous glands of the small intestines; but, to his surprise, cases fell under his own observation, both in Glasgow and Dublin, in which there was no lesion whatever of the intestinal tube. The general symptoms which he had almost always seen in fever in Paris and Geneva were exactly those which he observed in Dublin and Glasgow, so that he was firmly convinced it was the same disease. The most obvious differences were, in the fevers of this country, greater quantity of the eruption of rosy spots which is always seen, but not in any extent, in continental typhus; and the occurrence of the disease in infants and very old people, which is not witnessed in France and Switzerland. Diarrhoea also, which is almost a constant symptom abroad, is less frequent in the fever of Dublin and Glasgow, which is also more highly contagious. These facts, which were very startling to Dr. Lombard, led him to modify his previous opinion that fever was connected with a diseased state of the intestinal canal, and to conclude that "typhus fever is more a general disease affecting the whole constitution, than a malady depending on any local inflammation, or any local change of structure." The practical results from this view of the subject are, that one mode of treatment is not universally applicable, and that charity should be exercised when one set of pathologists criticise another in a different country.

In a subsequent communication written at Geneva, after reflecting on these facts and seeing cases of fever in England, Dr. Lombard endeavours to reconcile some of these differences. In the Fever Hospital of Liverpool he saw a hundred cases resembling those in Dublin very closely. In Manchester Fever Hospital, the proportionate number of cases was much less, but the symptoms very similar. In Birmingham there was no fever hospital, and but one fever ward in the infirmary: he was told that fever cases were by no means frequent, but that, where they proved fatal, ulcerations in the ileum were always found. In the London Fever Hospital there were only twelve cases; the symptoms were similar to the Dublin typhus, and, according to Dr. Tweedie's researches, ulceration of the intestines were not found in more than one-fourth of the cases. From these facts Dr. Lombard adopts the opinion that Ireland is the source of the contagious fever which prevails in Great Britain, and that it is the same disease which the French have called "*typhus contagieux, fièvre des armées, fièvre des prisons*," as described in 1813, 14, 15, when it prevailed wherever the armies met and sojourned. In twenty-five years there have been 77,866 cases in the Cork-street Fever Hospital in Dublin. Wherever the Irish poor go they carry this fever: hence it is prevalent in Glasgow and Liverpool, where the Irish pass in great numbers; and less so in Manchester, Birmingham, and London. But Dr. Lombard does not regard this as the only source of fever: fever is also sporadic, and he believes that this sporadic form is the common continued fever of the country, always attended with disease of the mucous glands of the small intestines, and similar to the typhoid or continued fever of Paris and Geneva.

[This paper of Dr. Lombard's is of much importance, although the first part of it contains nothing new, the opinions being exactly similar to those commonly embraced in this country. For, notwithstanding Dr. Alison and other pathologists have stated most emphatically that follicular disease of the intestines was not universal in the typhoid fever of this country, the fact has not met with the attention which so high an authority should command, from its being in direct contradiction to the constant experience of the Paris pathologists. The testimony of one who confesses his previous scepticism may be of greater service in producing conviction. The theory with which Dr. Lombard concludes is very ingenious: it may be that the highly contagious typhus of Dublin and Glasgow is identical with the camp typhus of 1814, described by Chomel and others; but we do not think that Dr. Lombard has suffi-

cient facts to prove that the common continued fever of this country is always attended with follicular disease, as in Paris. We are very deficient in exact and extensive information on this point.]

Dublin Journal, September, 1836.

Case of Spectral Illusions, with Loss of the Memory of Words.

By JAMES CRAIG, Esq., Surgeon, Ratho.

A GENTLEMAN, (designated Mr. N.,) of very superior mental endowments, retired from public life in the seventy-seventh year of his age, when still in good health. He could speak ten languages, and read fourteen. His habits were temperate. In 1819, when seventy-six years old, he began to have almost daily visitations of spectral images, generally of human faces and upper parts of the body, as large as life, and defined with the clearness and minute finishing of the finest painting; the lower parts were lost in a shadowy mist. The costumes were of various nations. He could never trace any resemblance of the faces to persons he had known: his own countenance, however, was occasionally presented to him, undergoing the change from youth to manhood, and from manhood to age. The figures were seen equally well with the eyes shut or open, in daylight or in darkness: they were always agreeable; he could call them up at will, and banish them by drawing the hands over the eyes, but they often speedily reappeared. In August 21st, 1832, he was suddenly deprived of the power to pronounce articulate language, whilst sitting at dinner; but in an hour afterwards he talked quite well, but in a slower tone. Previously to this he had suffered anxiety and annoyance, and his memory had become impaired, so that he could not recollect the names of his friends or of the plants in his conservatory. The next day he had a similar attack, and his conversation afterwards was generally unintelligible; in one sentence you might recognize French, Italian, Spanish, and but very rarely any English words; sometimes mere gibberish. On certain occasions, as when his feelings were strongly excited, or when he was suddenly surprised, or when he was roused to make an effort, he spoke a sentence in English distinctly and accurately. He was evidently quite conscious of what was going on, and understood perfectly what was said to him; he also recollected places, persons, and objects. On one occasion he imagined he saw his wife, (who had been dead several years,) beckoning him to follow her out of the window. The hallucination was so vivid, that he jumped out at the window, (a height of seven and a half feet,) and fell on the grass; but the fall did not dissipate the delusion. He related the particulars, chiefly in English, to his overseer, of whom he enquired if he had seen his wife. In this condition he continued four years. In July, 1836, he caught cold, which was followed by fever, under which he laboured nine days, and gradually sank, evincing to the last the same degree of sensibility he had done for years. Death took place in the ninety-third year of his age.

On examination, the dura mater adhered strongly to the skull; considerable effusion and vascularity over the surface of the brain, indicating chronic inflammation of the membranes, especially in the course of the superior longitudinal sinus, where the dura mater was very thick. Right hemisphere healthy, with the exception of a small tubercle near the surface. In the posterior lobe of the left hemisphere was a cavity, exceeding two inches in length, running outside of the left lateral ventricle, lined with a yellowish membrane, and the brain around it was much softened. In the middle lobe, a little behind the pituitary gland, was a similar diseased appearance, not exceeding a quarter of an inch in extent. The membranes of the base of the brain bore strong marks of chronic inflammation. Cerebellum sound. A small tubercle on the posterior part of the medulla oblongata. Semilunar valves of the aorta ossified.

[The paper from which we have taken the above particulars is very interestingly drawn-up, and is followed by important pathological remarks by Dr. Craigie. We subjoin brief notices of cases somewhat analogous: the first (a.) recorded in Mr. Craig's paper, by Dr. Davidson, one of Mr. N.'s medical attendants; the other (b.) extracted from a communication of Dr. Lendrick's, in the *Dublin Journal* for September, 1836.]

(a.) In the *Eloges* of Cuvier it is mentioned that Broussonet's memory of language

was affected in a singular manner. He had a slight attack of apoplexy, but of one faculty no restoration took place. He was never able to pronounce or write accurately substantive nouns and proper names, either in French or Latin, though he had complete power over the other parts of these languages. Epithets and adjectives he could accumulate in a manner sufficiently striking to make himself understood. When he wished to designate any individual, he recalled his figure, his qualities, and his occupations. Upon inspecting the head, there was found on the surface of the brain, on the left side, a large ulcer partly cicatrized.

(b.) A gentleman, distinguished in Trinity College, Dublin, for his scientific attainments, became paralytic, and afterwards his memory was so impaired that he recollected imperfectly only two or three friends. He had completely forgotten the use and nature of letters, and could neither write nor read a syllable, nor even comprehend the alphabet. He, however, perfectly recollected the use of figures, and could solve the most intricate arithmetical problems; but, if algebraical symbols were introduced, (and he had been a distinguished algebraist,) the connexion with letters confused him, and he was completely at fault.

Edinburgh Journal, October, 1836.

On Dropsy following Scarlet Fever. By J. STARK, M.D., Edinburgh.

DR. STARK has given an excellent account of the scarlet fever as it prevailed epidemically in Edinburgh, in the autumn and winter of 1835-36. In fifteen cases dropsical sequelæ followed. In the most severe cases, the swelling came on suddenly without any previous complaint, and from a fortnight to three weeks after the disappearance of the eruption. The patient went to bed well, and in the night or the next morning the friends were alarmed by the sudden swelling of the body, attended with dyspnœa, moaning, restlessness, and sometimes stupor. In all the cases in which the urine was examined, it was found coagulable by heat. In many of the severer cases, the urine passed before the dropsy came on was very turbid, dark coloured, in a few cases bloody. In two cases it was suppressed. Exposure to cold seemed the immediate cause of the dropsy: the function of the skin being checked, the blood is thrown upon the internal organs, and the kidney, whose action is vicarious with the skin, particularly suffers.

In all cases, except the very mildest, he bled in proportion to the severity of the symptoms, and the relief experienced from it. In severe cases he bled from the arm until the pulse was affected: under two years of age, leeches were used. The bleeding was followed by small doses of the antimonial wine with the liquor ammon. acet., and, where the urine was suppressed, a large hot bran poultice was applied to the lumbar region. In milder cases, the same medicines with brisk purging. The warm bath was of the utmost advantage. There was but one fatal case, of a boy five and a half years old, whose parents would not permit bleeding or leeches. Dissection was not allowed.

[The explanation of the action of cold in producing dropsy is given by Dr. Stark as his own, on which he founded his practice, which was very successful. It is but justice, however, to Dr. Osborne to state that he had previously advanced an identical explanation. (See British and Foreign Medical Review, vol. ii. p. 222.)]

Edinburgh Medical and Surgical Journal, October, 1836.

On distinguishing Neuralgic from Inflammatory Affections.

By W. GRIFFIN, M.D., Limerick.

DR. ABERCROMBIE has laid it down that, in peritoneal and enteric inflammations, the most important symptom is tenderness of the abdomen; and that, whenever this occurs, whatever may be the state of the bowels or pulse, or complaint of pain, the case should be most anxiously watched. There can be no doubt, however, that, although tenderness on pressure always accompanies inflammation, yet it may be present without inflammation, and such cases are very puzzling to the young practitioner. Dr. Griffin offered a suggestion several years since as a result of his experience, which has not been sufficiently attended to, and he now illustrates it by several

cases. He then stated that, in any doubtful cases, if there was tenderness at a portion of the spinal cord corresponding with the disturbed organ, that it might be considered decidedly neuralgic; but, if no such symptom was found, it was probably inflammatory. This is applicable to the neuralgic pains of the chest simulating pleurisy, as well as to abdominal affections. Three cases are given. The treatment does not seem to have been directed to the spine itself, but to the bowels—opium, fomentations, and purgatives. The patients were women.

Dublin Journal, September, 1836.

Cases illustrative of the Effects of the Saline Treatment in Morbid Conditions of the Blood. By C. R. BREE, Esq., Stowmarket.

THE mode of treatment introduced by Dr. Stevens has been cried up and cried down too much, and we still want sufficient evidence to enable us to decide on its merits. Mr. Bree's communication contains three cases, two of typhus fever and one of purpura. In all the cases amendment took place shortly after the administration of the remedy, but it is not so clear that these two events stood in the relation of cause and effect. In the first case, an ounce of wine was given every two hours, contemporaneously with the saline powder; and the benefit might certainly be owing to the former. In the second case, there is no proof of diseased blood, nor indeed of great severity of symptoms. The case of purpura occurred in an infant in an aggravated form, and there seems every reason to conclude that the saline treatment was most effective in removing the disease. The following is the formula of the remedy given to the child, (æt. fifteen months:)

R. Sod. Carb. ʒij.; Sod. Mur. ʒss.; Pot. Chlor. gr. x.; Syr. Ros. ʒss.;
Aqua, ʒi. M. coch. parv. ter die.

We hope Mr. Bree will proceed with his experiments.

Lancet, October 1, 1836.

Cases of Spasm of the Muscles of the Neck, sympathetic with Disorder in other Parts. By R. HUTCHINSON, M.D., Nottingham.

UNDER this title Dr. H. details three cases, which appear to him "to proceed from a similar cause, viz. morbid irritation affecting the *nervus accessorius ad p. octavum*, either arising immediately from the base of the brain itself, or from the upper portion of the medulla spinalis, or indirectly reflected from disordered function in distant organs, and, above all, from a deranged condition of the stomach."—"The most prominent condition is a spasm, more or less constant, of either one or both trapezius muscles, or of one sterno-cleido mastoideus."—"The spasm is attended with considerable pain and apprehension, so much so, that the patient dreads walking, which excites it considerably." The spasms abate at night, and the sleep is undisturbed, but during the day they continue with but little intermission. The cases were treated variously, according to the supposed source of the irritation producing the spasm. They proved all very obstinate.

Lancet, September 24, 1836.

On the Nature and Treatment of Acute Neuralgia. By F. C. SKEY, Esq.

MR. SKEY argues against the opinion, which it appears is held by some persons, that neuralgia is an inflammatory disease. He adduces several cases to show that it is not relieved by local depletory means and counter-irritation, and others to show the beneficial effects of muriate of ammonia (in doses of a scruple or half a drachm), colchicum, and aconitine. Two cases are related in which this last medicine, locally applied, in the proportion of one grain to the drachm of cerate, was productive of striking and permanent relief in tic douloureux.

Medical Gazette, November 5, 1836.

BARON SLOET'S Method of treating Epilepsy.

THIS is communicated by Dr. Aldis, to whom the Baron made known the secret, which had been preserved in his family for more than two centuries. The remedy is

said to have been singularly successful, though we fear its virtues will vanish with its publicity; it is as follows:—R. Cort. Rad. Dictamni albi, (Fraxinella,) lb j.; Pulv. Zedoariæ, ʒiss. The dose is about two scruples from once to four times daily.

Medical Gazette, October 29, 1836.

Influence of Mental on Bodily Functions. By C. O'REILLY, M.D. Dublin.

A HEALTHY young woman, of a nervous temperament, was extremely affected on hearing of the death of her brother, and declared she could not survive him one week. She retired to bed, refused all sustenance for three days: on the evening of the fourth day she took a little food, which she vomited. She died during the night. The body was examined, but no morbid condition was detected. Several similar cases are referred to: hundreds might be added.

Lancet, Nov. 5, 1836.

On the Use and Abuse of Aloes. By E. GREENHOW, M.D., North Shields.

THE object of the author of this paper seems chiefly to show, what all experienced practitioners know, that aloes, if long continued, produces irritation of the bowels, and particularly of the rectum; and that small doses are better than large. He says that from two to five grains will be sufficient: he might have said that half a grain, or even a quarter of a grain, will often be so, if minutely comminuted with mastich and rose-leaves, or many other inert substances. Dr. G. says that the addition of ipecacuan has the effect of diminishing or removing its irritating effect on the anus; and that its addition to squill and other diuretics often greatly promotes their action.

Medical Gazette, November 19, 1836.

ST. JOHN LONG'S Liniment.

MR. GUTHRIE, having had presented to him, for the purpose of trying its effects, some of the once famous liniment of Mr. Long, selected some cases for its application, and also had it applied to his own person, he being affected at the same time with a pain in the knee, attended with slight lameness. The experiment was conducted openly at the Ophthalmic Hospital, the liniment being applied by Mr. Wood, the person who rubbed under Long. It was used in five cases, besides Mr. Guthrie's own, but the disease of one only is stated, viz. that of a boy who is said "to have come up amaurotic from the country." The result of the treatment is thus given by Mr. Guthrie: "It cured my knee and the boy's eye, and did good to all the remaining four." The liniment appears to be perfectly mild and harmless, looking like thick yellow cream, and having a faint turpentine smell. Applied to the skin, it felt cool and agreeable, and not in the slightest degree stimulating. It was assiduously rubbed on the part by means of a small, soft, round sponge; and, after a sufficient application, the part became red, and finally excoriated and inflamed. Mr. Guthrie attributes the whole effect of the liniment to the mode of its application, and nothing to its own virtues. In proof of this, he had himself rubbed with soap-suds in the same manner as was done with the liniment, and exactly the same result followed. "I should have said, if I had been asked," says Mr. Guthrie, "that the soap-lather was the most severe liniment of the two."

[The mystery of St. John Long's operations, and of his (doubtless) occasional success, seems thus cleared up; and we consider the profession much indebted to Mr. Guthrie for its solution. We do not doubt that this particular mode of counter-irritation may be very advantageously applied in many cases both of acute and chronic diseases.]

Lancet, November 26, 1836.

SURGERY.

On the Treatment of Vascular Nævi by Injection. By E. A. LLOYD, Esq.

IMPRESSED with the danger of attempting to cure large nævi by excision, or by caustic, or by the ligature, Mr. Lloyd was led, several years ago, to inject them with a stimulating liquor; and his success has answered his expectations. He uses a syringe with several sets of tubes adapted to the size of the nervus, and he introduces the point of the tube through an aperture in the skin at some little distance from the disease, as there is then greater facility in compressing the nævus so as to prevent hemorrhage. Before injecting it, the nævus should be emptied of blood by pressure, and the pressure kept up till the instant of injection. The fluid should be retained in the nævus from five to ten minutes, by making pressure along the track which had been occupied by the tube of the syringe. Very large nævi require to be injected at several places, but it is better to make one attempt on the first occasion. When very hard, they may require puncturing in various directions, but this should be done from a single point. It is better to make pressure round the nævus, to prevent extravasation of the injection in the cellular tissue; and this can easily be done with the cover of a pill box, a notch being cut in it for the admission of the point of the syringe. Mr. Lloyd has used different fluids: such as one part of strong nitric acid to ten or fifteen parts of the spirit of nitric ether; or the spiritus ammoniæ aromaticus, when others have failed; or solutions of chloride of lime, of sulphate and acetate of zinc, of muriate of ammonia, of hydriodate of potash, &c. Mr. Stanley has used wine with success. The chief advantages of this plan are, that it is applicable to nævi so large as to be wholly irremediable by other means, that it occasions no deformity, and produces very little pain or constitutional disturbance.

It is important to remember that the nævus in the first instance is generally very small, and that it should be at once attended to. At an early stage the nitric acid or potassa fusa are the best applications; and Mr. Lloyd is in the habit of applying a thick coating of sealing-wax varnish around the nævus to confine the action of the caustic to the disease itself.

Medical Gazette, October 1, 1836.

On Anomalous Affections of the Larynx requiring Tracheotomy. By W. H. PORTER, Surgeon to the Meath Hospital.

THIS very interesting memoir contains the detail of several cases operated on by the author, and in which the life of the patient was evidently saved, although the exact nature of the affection could not be ascertained. It is perfectly evident, Mr. Porter observes, "that an obstruction to the process of respiration may exist to a degree to demand the prompt interference of the surgeon, without our being able to calculate on its pathological exciting cause; and this obstruction may continue for a length of time, and the patient subsequently recover as completely as if such lesion of function had never existed; thereby proving that it was independent of any organic lesion of structure. At the same time it must be confessed, that the majority of subjects thus affected do not recover, and therefore in them a lesion of structure may be inferred, although, in the present state of our knowledge, we may not be able to pronounce accurately upon it."

In two of the cases described by Mr. Porter, an interesting physiological fact was demonstrated, viz. "that the integrity of the trachea is not necessary to the production of articulate sounds in the larynx." The subjects of these cases could speak very distinctly without closing the aperture in the trachea made by the operation.

Dublin Journal for September, 1836.

Case in which a Pebble remained eight weeks in the Larynx.

By HENRY BULLOCK, M.R.C.S.

THIS accident occurred in a child, six years of age, on the 21st of May. The pebble was of the size of a large horse-bean. At first there was a severe paroxysm of

suffocation, which lasted half an hour; but subsequently the symptoms were mild, and so much resembled those of whooping-cough, that it was doubted if the pebble had been swallowed, although the child persisted in affirming this. The slight symptoms of bronchitis which supervened seemed subdued, and, from the 20th June to the period of her death, there was no return of cough; but, on the 6th of July, symptoms of pulmonic inflammation came on, and she died on the 18th. The pebble was found in the lower part of the larynx, surrounded with lymph: both the lungs and pleura were inflamed.

Med. Gazette, September 17.

On Extracting Foreign Bodies from the Ear. By N. HILL, M.D., Greenock.

DR. HILL has found the small hooked instrument which is to be found in cases of eye instruments useful in removing foreign bodies from the ear. This hook is so slender and light, having the point well turned up, that it can be used with all the delicacy of a probe, and can easily be carried along the parietes of the meatus, so as to get behind any object. Some of these cases are so troublesome, that any hint on the subject is worth attending to.

Edinburgh Journal, October, 1836.

On Lithotrity as practised by the late PHILIP FERNANDEZ, Esq.

THIS young surgeon, whose early death is much to be deplored, seems to have acquired a singular facility in seizing and crushing the stone in the bladder. The principle of his success is thus stated: "He saw that, when the bladder was injected, the surface would no longer be rugous but smooth, and that the stone would consequently be sure to roll to the lowest spot. He made it a rule in his operations, therefore, to come exceedingly close to the stone without touching it; and then, having first opened his instrument, he gently pressed the part. The spot touched being thus made the lowest part of the bladder, the stone uniformly rolled into the instrument, and he had nothing to do but to close it and crush the calculus."

Medical Gazette, October 22.

Aneurism of the Arteria Innominata successfully treated by Ligature of the Common Carotid. By S. W. FEARN, Esq. Surgeon, Derby.

IT is unnecessary to give the details of this case, which is creditable to the operator. As the author justly remarks, "it tends strongly, with the cases already published, to determine one important surgical question, viz. the curableness of what has till lately been considered incurable, aneurism of the arteria innominata; and it also bears upon the general question of the propriety, in every case, of attempting the cure of aneurism by ligature of the vessel on the distal side of the disease."

Lancet, October 15.

On Amputation of the Penis. By J. MORRISON, M.D., Newry.

DR. MORRISON relates two cases of amputation of the penis, from which he is inclined to prefer removing the organ with one stroke of the knife, instead of the circular incision usually recommended; for, even by the former method, which is less painful, enough skin is preserved to cover the wound. He recommends the introduction after the operation of a quill canula, two inches long, instead of a catheter, which irritates the neck of the bladder. The canula gives free exit to the urine, prevents an undue contraction of the cut urethra, and is unirritating. Sutures are preferable to adhesive straps.

Dublin Journal, September, 1836.

New Treatment of Onychia Maligna. By C. RAY, Esq., Falkingham.

MR. RAY is opposed to the entire evulsion of the nail in this most troublesome disease, and justly states that it is useless to expect a cure until that part of the nail, at least, which acts as a constant source of irritation is removed. His mode of treat-

ment is, after freely dividing the swollen parts over the root of the nail and cauterising them, to apply poultices, and enjoin perfect quiescence of the limb. This mode of treatment, the caustic being reapplied every second or third day, brings the parts into a state favorable for the partial removal of the nail, which is effected by passing a scissors from within outwards beneath the posterior angles on each side, and removing "an exact triangular portion," the two incisions meeting in a point in the centre of the posterior edge of the nail. After the separation of the nail, the wound is dressed with adhesive straps which are not to be removed for some days.

Lancet, November 12, 1836.

MIDWIFERY.

On Binding the Abdomen of Lying-in Women. By HUGH LEY, M.D.

DR. LEY is of opinion that the value of the bandage so commonly applied after delivery has been greatly over-rated. In his experience there is but one circumstance in which the bandage with a compress over the uterus is imperatively called for. It is in a form of hemorrhage described by Dr. Gooch, in which the uterus which had contracted is again dilated by hemorrhage taking place into its cavity: in these cases, it is not only requisite that the uterus should be cleared of the coagula, but that it should be prevented from again enlarging; and this can only be done by a bandage and compress; but they should not be applied until repeated gushes of blood have reduced the circulation. In preventing the occurrence of hemorrhage, for which it has been advised, its use is very equivocal; for, amongst the poor where it is omitted the relative mortality from hemorrhage is probably less than among the rich. To restrain actual hemorrhage it is obviously insufficient; and, if it may have been applied, it must be removed, in order to ascertain the state of the uterus, and to adopt those manipulations by which the bleeding is effectually restrained.

The bandage alone may be applied over the abdomen, with moderate and equal pressure, in cases of syncope following rapid delivery, which is produced, as in tapping, from the sudden removal of pressure; and, in such circumstances, it should be applied immediately on the expulsion of the child. It may also be used to satisfy ladies who believe that it will preserve their form by preventing permanent distention of the abdomen, and to relieve uneasy sensations consequent on the relaxed condition of the abdominal muscles; but, in these cases, it need not be applied until the clothes have been changed, and the patient placed in bed, and sufficiently loose to allow the hand to pass easily between it and the belly.

The bandage and compresses often produce *injurious consequences*. Dr. Ley has known it force the uterus to one side of the abdomen, producing much uneasiness in the hip, stretching the ligaments and pressing the appendages of the uterus against the sharp linea ileo-pectinea: hence laying the foundation of permanent obliquity of the uterus, not unfrequently a cause of barrenness. Another effect is to push the uterus lower into the cavity of the pelvis; thus producing prolapsus uteri, which Dr. Ley has more than once traced to this cause. Not only is the uterus pushed downwards, but the vagina is sometimes thrown into folds; the whole circumference descending until it forms a bulky tumour at the vulva. These evils are great, and not infrequent. Dr. Ley is also inclined to think that the bandage increases after-pains.

Med. Gazette, September 10 and 17, 1836.

On the Spontaneous Amputation of the Limbs of the Fetus in Utero.

By J. G. SIMPSON, M.D.

THIS curious subject was investigated by Dr. Montgomery in the first and second volumes of the Dublin Journal, and illustrated by two cases which had come under his own observation. From these Dr. M. concluded, that this spontaneous amputation is the consequence of the constriction of the limb at the point of separation, by a

ligature of organized lymph. In the present paper, Dr. Simpson adduces a good many additional instances of the same circumstance from authors, and notices also three cases which had recently come under his own observation. Dr. S. adopts the explanation of this curious phenomenon advanced by Dr. Montgomery, and adduces some additional arguments in its support. The following are Dr. S.'s conjectures as to the manner in which the partial or total separation of the limb is affected. He assumes with Dr. Montgomery, that the effusion of the lymph in the first instance is the result of inflammation, although how or wherefore this is produced he cannot explain. It is necessary to recollect, (says Dr. S.,) how readily the atrophy or interstitial absorption of any living texture is produced by the application to it of a continuous and strong pressure, and that, in the earlier months, the limbs of the fœtus are so slender, and their component tissues so soft. Now, supposing the organizable lymph to be once effused, so as to have its two extremities attached to two parts of the body, more or less distant from one another—as to two parts of two limbs,—it is evident that the texture of the pseudo-membrane must soon become stretched, and compress more or less precisely those parts over or around which it passes, in proportion as the two points of the body forming its origin and insertion become gradually more and more separated from one another, in the regular progress of development. The sudden movements of the fœtus may also contribute to the same effect.

Dublin Journal, November, 1836.

MEDICAL STATISTICS.

Statistics of Fever in Belfast. By W. MATEER, M.D., Physician to the Belfast Fever Hospital.

THIS is a very interesting paper, which we regret that we cannot notice more at length. We must content ourselves with a few of the more important facts contained in it. The following general results apply to a period of eighteen years, viz. from May, 1817, to May, 1835; and are taken from the records of the Fever Hospital. The total number of patients admitted was 11,209, viz. 4,458 males and 5,130 females; and of these, 103 were received in a dying state. The ratio of the deaths to the recoveries was 1 in 15, including the moribund cases, and 1 in 18 excluding these. The average number of days which patients remained in the hospital was twenty-two. In regard to the *causes* of the disease, it would appear that the seasons or period of the year exerted little influence, as the number admitted varied but little in the different quarters. There seems to have been greater difference in the ratio of the mortality, this being in the different seasons as follows: summer, 1 in 17; autumn, 1 in 15; winter, 1 in 14; spring, 1 in 13. The influence of the important cause, *contagion*, is illustrated by a table; but the results can only be admitted as probable, as many will be disposed to disallow the evidence admitted as proof of contagion, viz. the mere fact of *two or more individuals being brought from the same house or family*. Assuming this test of contagion to be legitimate, out of the total admissions, 7,246 originated from this cause, and only 2,342 from causes of a different kind. One of the most striking results is the beneficial influence produced on the curability of fever by early removal to the hospital; a result which has been often observed. The ratio of mortality per cent., according to the period of the disease at the time of admission, is as follows: of the cases admitted on the second day of the disease, the mortality was 2 per cent.; on the third, 3; on the fourth, fifth, and sixth, 4; on the seventh, 6; on the eighth, 11; on the ninth and tenth, 10; on the eleventh, 6; on the twelfth, 10; on the fourteenth, 20.

The most uniform results obtained from any part of Dr. M.'s calculations are these in reference to the influence that *age* has on the number and mortality of fever cases. It would appear that the susceptibility to the disease diminishes, while its fatality increases with the increase of age. Thus, there were admitted

from birth to the twentieth year, 5,214 patients, and the mortality was only two per cent.; from twenty to forty, the number was 3,747, and the mortality eight per cent.; from forty to sixty, the number was 1,043, and the mortality twenty per cent.; from sixty to eighty, the number 171, and the mortality thirty-five per cent. The female sex would seem to exert an analogous influence with tender age, giving a greater predisposition to be effected and an inferior mortality: thus, of the total admissions, 5,130 were females and 4,458 males; while the general mortality among the former was 1 in 16, and in the latter 1 in 13. Nothing positive could be ascertained as to the influence of trades in giving rise to fever, as the proportion which the different trades bear to the whole population could not be ascertained.

The following remarks upon the relative prevalence of the disease in different parts of the town are interesting, and the observation respecting the deleterious influence of a deficient supply of water very important, both in a medical and hygienic point of view. "The streets inhabited by the poorer classes supply the greatest share; but they differ greatly in this respect. One street called Carrickhill, and its continuation, Millfield, with the adjoining lanes and entries, are found to have supplied nearly three-fifths of the whole amount; and yet these are by no means the poorest or worst-ventilated parts of the town. The circumstance would seem to be caused by a deficiency in the proper supply of water to this district, from its occupying a higher elevation than the source whence the rest of the town is supplied. Water is procured in other ways, but with difficulty, and not in the quantities they would otherwise have it. The consequences are want of cleanliness and bad sewerage, so that decayed animal and vegetable matter of all kinds, not being carried off by a current of water in the usual way, accumulate, and so generate miasmata." In making this statement, Dr. Mateer does not seem to perceive how much it militates against his opinion of contagion being the great source of fever in Belfast.

Dublin Journal, September, 1836.

On the comparative Frequency in which the principal Medicines have been prescribed in Dublin, during the last sixty years. By W. D. MOORE.

MR. MOORE, apothecary, has examined the prescriptions in his establishment, (which was commenced by his grandfather in 1780,) in order to estimate the use made of the principal medicines by the most eminent physicians and surgeons of Dublin. For this purpose, he divided the entire time into three equal portions, and from each of these he took 1,200 prescriptions, and marked the frequency with which each medicine occurred in them. We must refer to the original paper for the tables thus constructed, contenting ourselves with the most prominent results.

Emetics in the first period were given ten times as often as in the second, and twelve times as often as in the last. Formerly, they were given invariably at the onset of fever, as, according to the prevailing theory of Cullen, they took off the spasm of the extreme vessels. Enemata were prescribed during the last forty years somewhat less than one-half as often as during the first twenty. The period when they were most seldom ordered was about the time when Dr. Hamilton's purging practice was introduced. Their use is now becoming more frequent. Local bleeding has made a gradual and steady progress. Blisters and warm plasters have diminished, and the latter have been partly superseded by stimulating liniments, and other modes of counter-irritation. Tartar emetic was given constantly as an emetic in the first period: but, except as an emetic, it is met with most frequently in the third. Kermes mineral was formerly much used in pneumonia: it has ceased to be employed, but the antimonial and James's powder have increased. The total number of the preparations of antimony is nearly equal in each of the three periods. Opium has kept its ground steadily: its camphorated tincture has fallen almost into disuse. Hyoscyamus is more used, owing to the extract being commonly prescribed in conjunction with blue pill. In the first period the red peruvian bark was used generally, and in powder. After that, the infusion and tincture of the pale bark; and now sulphate of quinine has in great measure superseded all. Epsom salt has been but recently commonly employed, its place having been formerly supplied by Rochelle salt, sal polychrest, and the sulphate of soda. Nitre has fallen into comparative disuse. Blue pill was found seventeen times in the first

period, thirty-nine in the second, and 156 in the third; owing to Abernethy's recommendation. The use of mercurial ointment in frictions has much diminished. Jalap has decreased, and rhubarb increased. Ipecacuanha is used much more at present than formerly. Fifty years ago blisters were seldom dressed with simple ointment, or allowed to heal soon; basilicon or an ointment of trifolium melilotus was employed. The following medicines have undergone a considerable change:

Guaiacum	32	10	2
Camphor	9	22	52
Colocynth	19	31	67

The Dublin Journal, September, 1836.

Statistics of Suicide in Aberdeen. By F. OGSTON, M.D.

IN Aberdeen, out of a population of about 58,000, there have been, in ten years, thirty-eight cases of suicide, and fourteen serious but unsuccessful attempts at suicide. Of the whole number, precisely one-half were of each sex; but, of the successful attempts, twenty-two were males and only sixteen females. The age at which the greater number both of attempted and actual suicides took place, and in both sexes, was from twenty to thirty. As might have been expected, the more violent means, such as cutting instruments and firearms, were had recourse to by males; while poison and drowning were the modes chiefly chosen by females. The three great causes were (1) *Insanity* in some of its forms, (2) *Love disappointments*, and (3) *Family quarrels*; out of the whole fifty-two cases, twenty being from the first, eleven from the second, and eight from the third. Of the eleven cases from love disappointments, eight were females. Out of the twenty-six women, no fewer than eleven were prostitutes. Of thirty of the individuals, not fewer than twenty were intoxicated before attempting suicide; seventeen had the character of habitual drunkards, and an equal number were reputed as temperate. In six of the cases, the attempt was the second; if one, it was the third.

Medical Gazette, November 5, 1836.

Statistics of the London Hospital, with remarks on the Law of Sickness.

By T. R. EDMONDS, Esq. B.A.

THIS is the continuation of a former article published by the author in the same journal in February last, and, as well as that, is a most important document. The nature of the article precludes the possibility of giving an intelligible abstract of it; and we cannot give it entire; but we earnestly recommend its perusal to our statistical readers. As a mere *specimen* of its value, we extract a single passage, which points out a most momentous omission in almost all medical reports hitherto published, from which conclusions respecting treatment have been deduced.

"The merit of discovering some peculiarly efficacious treatment of a particular malady is frequently claimed by different medical men, on the ground of the mortality among their patients being unusually low. All mention of the *ages* of their patients is omitted, and no suspicion appears to be entertained of the fact that, under the same medical treatment, a difference of twenty-three years in the ages of the two classes of patients will cause a doubling of the mortality. When the ages of the patients are unknown, the diminished duration of sickness, also, is no ground for presuming on any superiority of treatment. There exists satisfactory (though indirect) evidence that the mean duration of an attack of sickness is equally dependent on the ages of the patients."

[A striking illustration of the truth and importance of this element of *age* in medico-statistical details, will be seen in the abstract given of Dr. Mateer's report of the Belfast Fever Hospital (see p. 260 of our present number); as the results there recorded are in perfect accordance with Mr. Edmonds's principle, although it does not appear that the author of the Report was aware of its influence.]

Lancet, November 3, 1836.

FORENSIC MEDICINE.

THE following trial, which occurred at the Perth Assizes, is of some medico-legal interest.

It was proved in evidence that a middle-aged man, of intemperate habits, whilst intoxicated and lying on the floor, was struck twice on the left shin with a poker; that after this he was lifted up, and seated on a chair; that he then limped to the door, a distance of fifteen feet; that his leg was caught between the leaves of the door as he went out; that almost immediately afterwards he was found sitting on the smooth flag stones before the door, with the left tibia projecting three or four inches through a wound in the integuments; that he became delirious soon afterwards, and died at the end of a fortnight. On dissection, the tibia was found fractured above the middle, with small detached splinters, and the bone dead to the extent of an inch on both sides of the injury, being quite smooth and ivory looking, and surrounded by an effusion of new bone, between which and the new portion an ulcerated groove was forming. A comminuted fracture of the head of the fibula was discovered on dissection, which had been overlooked.

Professor Syme was examined. He considered the fracture of the tibia had been caused by a violent blow, and could not have been produced by a simple fall of the body, without impulse. He thought so from the part fractured, the direction, and the dead bone. He thought the deceased might have walked to the door after the tibia was fractured, and, though very improbable, it was not impossible after the fibula also was broken. The slamming of the door would account for the fracture of the fibula: no ecchymosis would have appeared for several hours after the injury. Where the tibia protruded there would be no ecchymosis, as it would give exit to the blood. An ecchymosis over the tibia might escape notice.

For the defence it was contended, that the fracture had been occasioned by the deceased falling on the smooth stones at his own door; that the tibia had been fractured alone by the fall; and that the head of the fibula had been broken by "rough handling" after death; that, if the fracture had been caused by external violence, there would have been ecchymosis; that the deceased could not have walked a few steps after the fracture, even supposing the fibula had remained entire, and that the dead appearance of the bone could be accounted for by its protrusion, or subsequent gangrene.

The jury decided that the fracture had not been caused by external violence.

Professor Syme makes the following remarks on the trial: 1. He does not believe that a simple fall on a level surface could cause a compound fracture of the leg; nor that the tibia, if broken in this way alone, the fibula remaining entire, could project three or four inches from the wound. 2. Besides other obvious objections, the explanation that the fibula was broken by rough handling, requires it to be believed that the fibula remained sound whilst the broken end of the tibia projected three or four inches, which is impossible. The following cases of recent occurrence best answer the questions whether it is impossible to walk a few steps after fracture of the tibia, and whether the presence of ecchymosis is a necessary or never-absent consequence of compound fracture caused by external violence:—Dr. L., of Strasbourg, while travelling in the Highlands, broke both the bones of the leg, and afterwards travelled 170 miles by a variety of conveyances to put himself under Mr. Syme's care. On his arrival, the third day after the accident, he went into a warm bath without any bandage on the limb.—Mr. Crichton, of Dundee, had a patient who, under the influence of delirium tremens, danced about the room, with both bones fractured near the ankle, and protruding through the integuments. Mrs. M., æt. forty-eight, was admitted with compound and comminuted fracture of the left leg, from a wheel passing over it: the wheel had also passed over the thigh, producing considerable ecchymosis, but there was no ecchymosis at the seat of the fracture. Many pieces of bone exfoliated. This case illustrates Mr. Syme's remarks on ecchymosis, and on the exfoliation of bone after external violence.

Edinburgh Medical and Surgical Journal, October, 1836.

CHEMISTRY.

New Method of preparing Iodic Acid. By LEWIS THOMPSON, Esq. M.R.C.S.

THIS method is said "to be cheaper and safer than the mode used by Sir H. Davy, and affords a purer acid than the plan proposed by Gay Lussac;" it is described as follows: "Put one atom, or 124 grains, of iodine into a bottle containing twenty-four ounces of water, and pass chlorine, previously washed, through the mixture, until this, having undergone various changes of colour, from orange-red to yellow, shall have become as colourless and transparent as water. The solution is then to be carefully heated to 212° Fahr., to expel the excess of chlorine, and five atoms, or 690 grains, of pure oxide of silver being added, the mixture is to be boiled for ten minutes, filtered, and cautiously evaporated to dryness. The product is pure iodic acid, and must be kept in a well-stoppered phial."

Medical Gazette, November 5, 1836.

TOXICOLOGY.

Deleterious Effects of Pork. By J. M'DIVITT, M.D., Canterbury.

IT is commonly known that fresh pork, to those unused to it, is apt to produce diarrhoea and griping pains; but Dr. M'Divitt has met with several cases in which the abdominal symptoms were equal in severity to those produced by acrid poisons.

CASE I. A man was seized, seven hours after eating salt pork, with acute burning pain in the epigastric and umbilical regions, and constant vomiting; pulse weak, extremities cold; cold perspiration covered the face; he complained of a dry burning sensation in his throat. Poisoning was suspected: an emetic was given, and some lumps of half-digested meat expelled, with relief to the pain in the epigastrium; the bowels acted, and the pain round the umbilicus was then removed. The next morning he went to work.

CASE II. A hale man was attacked, about three P.M., with pain, like cramp in the stomach; his respiratory muscles seemed spasmodically fixed; countenance pale and anxious; pulse feeble and intermittent; hiccup, followed by an ineffectual attempt at vomiting. He complained that something lay at his stomach, hard and heavy as a stone. Two hours before he had dined on fried pork. An emetic was given, several pieces of pig's liver and fat pork brought up, and he felt free from pain.

CASE III. Similar to the others. The pain was situated over the duodenum, and aggravated by the slightest pressure.

CASE IV. A robust young man dined on pork, about two in the afternoon: seven hours afterwards he was attacked with agonizing pain in the abdomen and vomiting. The next morning the pain was still violent, with some vomiting. He had been purged several times, with temporary relief; abdomen slightly swollen, and very tender; face and eyelids swollen; breast, arms, and legs covered with urticaria; pulse quick and sharp. An emetic and purgative were given: the pain and swelling of the abdomen were removed the next day, but the eruption appeared and disappeared by turns for a week, and was only cured by purging.

Two other cases are given: in one, the pain came on twenty-three hours after the pork was eaten, and Dr. M'Divitt says it was situated in the sigmoid flexure of the colon: the other case is imperfectly reported, as there is nothing said to prove that pork had been taken. Several other cases have occurred in Dr. M'Divitt's practice. In every case *fat* pork had been eaten, but no alteration could be detected in its sensible properties: in some instances several persons had eaten of the same pork, and only one was affected; and this person has in general repeatedly eaten pork, and even from the same pig, without injury.

Edinburgh Medical and Surgical Journal, October, 1836.

PART FIFTH.

Medical Intelligence.

ON THE

PRESENT STATE OF MEDICINE IN THE UNITED STATES;

By **ROBLEY DUNGLISON, M.D.**, Professor of the Institutes of Medicine and Medical Jurisprudence in Jefferson College, Philadelphia.

ART. I. OF THE MEDICAL INSTITUTIONS, (CONTINUED.)**B. MEDICAL ASSOCIATIONS FOR THE REGULATION OF PRACTICE.**

ALTHOUGH the colleges which possess the power of conferring degrees are so numerous in the United States, they are not the only institutions that give authority to practice. In some of the States, the diploma of an incorporated Institution is of itself insufficient; the Candidate for the exercise of his profession must still subject himself to examination before a State Medical Society, and not until he has passed this Ordeal can he establish himself as a practitioner within the commonwealth.

Between fifty and sixty years ago, the first society was formed for the regulation of the practice of physic and the suppression of quackery. In 1781, the Massachusetts Medical Society was incorporated by the legislature of Massachusetts; and subsequently similar societies were instituted in Maine, New Hampshire, Vermont, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, South Carolina, Georgia, Mississippi, Alabama, Louisiana, Ohio, Indiana, Illinois, the district of Columbia; &c. The main objects of all these associations are the same, but they differ essentially as to the powers which they possess. In some of the States, as in Virginia and Pennsylvania, persons who are not licensed, nay, who have no diplomas, are permitted to practise, and are allowed to receive the fees; whilst in other States, as in Massachusetts and Maryland, the unlicensed practitioner not only cannot recover, but he is subjected to a prosecution and to heavy penalties.

To appear before the examiners appointed by the society, it is not necessary that the candidate for the licentiate shall be a graduate of any Medical College. The censors have the power of granting licences to any one who exhibits himself, on examination, sufficiently qualified to exercise his calling. The act of incorporation of the Massachusetts' Medical Society, after stating that "it is clearly of importance that a just discrimination should be made between such as are duly educated and properly qualified for the duties of their profession, and those who may ignorantly and wickedly administer medicine, whereby the health and lives of many valuable individuals may be endangered, or perhaps lost to the community," enacts, that "the president and fellows of said society, or such other of their officers or fellows as they shall appoint, shall have full power and authority to examine all candidates for the practice of physic and surgery, who shall offer themselves for examination, respecting their skill in their profession; and if, upon such examination, the said candidates shall be found skilled in their profession, and fitted for the practice of it, they shall receive the approbation of the society, in letters testimonial of such examination, under the seal of the said society, signed by the president, or such other person or persons as shall be appointed for that purpose." It was subsequently, in 1819, enacted by the Senate and House of Representatives of Massachusetts, in general Court assembled, and by the Authority of the same, that no person entering on the practice of physic or surgery, after the 1st day of July of that year, shall be entitled to the benefit of law for the recovery of any debt or fee accruing for his professional services, unless he had, previously to rendering those services, been

licensed by the officers of the Massachusetts Medical Society, or "*had been graduated a Doctor of Medicine in Harvard University.*" By this act, consequently, the graduate of any other Medical College in the State or elsewhere must present himself to be received as one of the *Permissi* of the society; the graduate of Harvard being alone exempt.

The following extracts from the By-Laws of that Society will shew, that the examination is not a mere matter of form.

"xxxiv. Any person, who has received his medical education within this commonwealth (Massachusetts), may be admitted to an examination by any board of Censors, provided he have the following qualifications, and not otherwise.

"1. He shall be a person of sound mind and of good moral character, shall have completed twenty-one years of age, and shall have such an acquaintance with the Latin language as is necessary for a medical and surgical education, and with the principles of geometry and experimental philosophy.*

"2. He shall have studied three full years under the direction, and attended the practice, of some one or more of the fellows, or retired or honorary members of the society; during which time he shall have studied the most approved authors on Anatomy, Chemistry, *Materia Medica*, Midwifery, and the theory and practice of Medicine and Surgery; or, at least, all those which the counsellors shall from time to time specify as constituting a proper course of medical and surgical education.

"xxxv. Any person, who has received his medical education out of this commonwealth may be admitted to an examination by any board of Censors, provided he have the following qualifications, and not otherwise:

"1. He shall have the qualifications first specified in the preceding by-law.

"2. He shall have studied three full years under the direction, and attended the practice of some respectable physician or physicians; and shall have followed in his medical studies a course equivalent to that pointed out in the second of the preceding by-laws."

This Society had not only the power of electing, from time to time, such physicians as are deemed worthy of membership, but of expelling those who may be found unworthy; a privilege, which they exercise on befitting occasions. Originally, the Society consisted of thirty-one members, but it now includes nearly seven hundred. On the day of the annual meeting of the fellows of the Society a dinner is provided, under the direction of the president, at the expense of the Society, for such fellows and professional strangers as may attend the meeting. It need scarcely be said, that in this way harmony is promoted amongst the members of the profession, and its respectability carefully protected. At the late anniversary meeting not fewer than 250 guests sat down under the presidency of their estimable officer, Dr. John B. Warren, of Boston, the able professor of anatomy in Harvard University.

At every annual meeting of the Society, as many "Counsellors" are chosen by ballot as the Society may consider at the time necessary and expedient, who hold their offices for one year. Amongst other matters, it is the duty of the Counsellors, once in every three years at least, to specify such authors on Anatomy, Physiology, Chemistry, *Materia Medica*, Midwifery, and the theory and practice of Medicine and Surgery, as they may judge proper and necessary to be studied by medical and surgical pupils, previously to, and to qualify them for, an examination before the Censors: and they are required to cause this specification to be published in three newspapers, in three different counties, and in at least two papers in the city of Boston. As the ballot may be presumed to fall generally on the older members of the profession, who are perhaps the

* "It is understood that he be able to translate the select orations of Cicero, the *Æneid* of Virgil, or the medical writings of Celsus, and the formulas of the Pharmacopœia of the United States; and that he have a knowledge of Euclid's, Playfair's, or Legendre's Elements of Geometry, and Bryan's Conversations on Experimental Philosophy, or Enfield's Elements of Natural Philosophy."

least likely to keep up with the advancing state of the science, the list of authors can scarcely be expected to be, in every instance, the best possible. In the specification last published, many of the best works are omitted, whilst others of but little importance or value have been retained.

The power given to the Society over its fellows is ample, and is occasionally exercised.

"Any fellow may be expelled from the Society, or, having resigned his fellowship, may be deprived of his privileges, by a vote of two-thirds of the fellows present at any annual meeting, upon charges of the following description; provided the charge or charges against him have first been considered by the counsellors, and are brought forward by them, or been made before the Society at a preceding annual meeting, and provided he has had opportunity given him to lay before the Society a refutation of the charge or charges so made, or a defence of his conduct in the premises, viz.

1st. For any gross and notorious immorality, or injurious crime under the laws of the land.

2. For any attempt to overturn or destroy the Society.

3. For the breach of any by-laws of the Society, for which expulsion is made the penalty.

4. For furnishing to any person a certificate in respect to his character and studies as a student of medicine, if the same be proved to be false, and shall tend to deceive the public or the Censors of this Society."

Another by-law declares that any person who is engaged in the practice of medicine or surgery in the commonwealth of Massachusetts, not being a fellow or licentiate of the Society, nor a doctor of medicine of Harvard University, shall be deemed an irregular practitioner; also any one who has been expelled from the Society, or who, after having been permitted to resign his fellowship, has been deprived of his privileges, or who has withdrawn himself from the Society without the permission of the Counsellors, shall be deemed by the fellows of the Society an irregular practitioner; and it is declared to be unlawful for any fellow of the Society, in his professional capacity, to advise or consult with any such irregular practitioner, or in any way to abet or assist him as a practitioner of medicine or surgery; and for any breach of this by-law the fellow of the Society is disqualified for one year from giving his vote at any meeting of the Society, and of the district society of which he may be a member; he is also liable to censure and reprimand from the counsellors, and, in aggravated cases, to expulsion. It is further declared, that if any fellow of the Society shall publicly advertise for sale any medicine, the composition of which he keeps a secret, or, in like manner, offers to cure any disease by any such secret medicine, he shall be liable to expulsion, or to such other penalty as the Society, at their annual meeting, may think proper to inflict.

The system has been found to work well; and hence the ranks of the profession are not better supplied in any State of the Union; nor its respectability better supported than in Massachusetts.

The fee charged by the Society for a licence is ten dollars.

Similar regulations to those adopted by the legislature of Massachusetts exist in some of the other States. In Maryland, the association incorporated by the legislature is termed the "Medical and Chirurgical Faculty of Maryland." The first act to establish it was passed in 1799, empowering the Faculty "to grant licences to such medical and chirurgical gentlemen as they, *either upon a full examination, or upon the production of diplomas from some respectable college*, might judge adequate to commence the practice of the medical and chirurgical arts; each person so obtaining a certificate, to pay a sum not exceeding ten dollars, to be fixed on or ascertained by the Faculty. The act farther declared, "that, after the appointment of the Medical Board, no person not already a practitioner of medicine or surgery should be allowed to practise in either of the said branches, and receive payment for his services, without having first obtained a licence, certified as by this law directed, under the penalty of

fifty dollars for each offence, to be recovered in the County Court, where he may reside, by bill of presentment and indictment; one-half for the use of the Faculty, and the other for that of the informer." In one of the by-laws of the Faculty it is enacted, that "even persons obtaining a licence from the Board of Examiners to commence the practice of medicine and surgery, shall pay into the Treasury the sum of ten dollars. And all persons, graduates or others, wishing a licence to practise medicine and surgery in Maryland, are equally bound to pay for said licence." It has been decided, however, of late, by the Court of Appeals of the State, that a diploma from the University of Maryland is a State licence, and, therefore, her Alumni are exempt from the demand.

The annual convention of the Faculty takes place on the first Monday of June. Its object is to investigate and regulate the concerns of the Faculty; for which occasion an orator is appointed to address the Faculty on some medical or philosophical subject. The meetings are not, however, attended with the same zeal as those of the Massachusetts Medical Society, the business concerns of the Faculty being generally left to the management of but a few members. A portion of the funds accruing to the Faculty is appropriated, as in the case of the Massachusetts Medical Society, to the formation of a medical library, which is in Baltimore, and to which the members have access. It has not been long founded; but it already possesses upwards of six hundred volumes, the productions of some of the best authors in the different departments of the science.

The formation of these State Societies has doubtless had considerable influence in promoting the respectability of the profession, and harmony amongst its members, and, to a certain extent, in preventing quackery. Still, even in States of the Union in which such societies exist, empiricism is too much tolerated. Although inhibitory laws may have been enacted, it is not easy to have them enforced; indeed sympathy is often enlisted in behalf of the defendant when a prosecution is undertaken, and mainly on the ground that it is an interference with the just rights of the citizen, who ought to be permitted to exercise any calling he may select; and that, if the public choose to consult an unqualified individual, they should have the right to do so; that, moreover, it is creating a monopoly in the case of the regular practitioners, which ought not to be countenanced. These reasons have at times had sufficient weight in legislative bodies to induce a majority of the members to vote for the admission of the unlicensed pretender to full rights. Not long ago, an application was made by a class of empirics, existing everywhere in the United States, who call themselves Thomsonians after their founder, to the legislature of Maryland, to permit them to establish an Infirmary within the State, and to teach medicine uncontrolled by the Medical and Chirurgical Faculty; but the good sense of the legislature prevailed, and the application was rejected.

The Thomsonians consider that most diseases are owing to defect of stimulus, and accordingly they administer largely the different peppers, especially the cayenne, and stimulate by the vapour bath. They discard all mineral remedies, and profess to be essentially (as they term themselves) Botanic Physicians. The number of their proselytes in the United States amongst the unprofessional is considerable. Perhaps the best way to check its spread is to trust to the good sense of the community. Like every other form of empiricism, it may exist for a time, and they who succeed us will be surprised at our gullibility, as we are surprised at the gullibility of those who have gone before us.

By several of the societies of the different States, systems of medical ethics have been drawn up for the guidance of their members, containing such regulations of etiquette as are calculated to maintain their honour and dignity, and to keep up a good feeling amongst the members. In the year 1832, the Medico-Chirurgical Society of Baltimore published a system of medical ethics adopted by them on the report of a committee. In the composition of this system the Committee affirm that free use was made of Percival's ethics, the abridgment of the same by the Kappa-Lambda Society of Philadelphia, Gregory's Lectures on

the Duties and Qualifications of a Physician, the Code of Ethics drawn up by the New-York State Medical Society, that of the Connecticut Medical Society, Rush's Medical Observations and Inquiries and Lectures, and the Medical Jurisprudence edited by Dr. Griffith, of Philadelphia. The first section embraces the Duties of Physicians to each other. Several of these appear to be sufficiently obvious, and their very mention might seem to be a work of supererogation. Were the great rule of Christian ethics present to the mind of the physician, "Do unto others as ye would that they should do unto you," there would be but little necessity for such a publication. The following are some of the printed inculcations.

"1. Every physician should observe the strictest caution and decorum in his intercourse with a case under the care of another; as the mind of the patient, as well as that of the friends, is, by solicitude and anxiety, rendered peculiarly sensible to every thing relating to the management and termination of the case, and is ever ready to seize upon every meddling enquiry and every disingenuous hint, and to construe them in a manner disadvantageous to the physician employed, and calculated to destroy the confidence reposed in him.

"2. The same caution and circumspection should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under particular circumstances; and, when they are made, no particular enquiries should be instituted relative to the nature of the disease or the remedies employed; but the topics of conversation should be as foreign to the case as circumstances will admit. It is also indecorous and undignified for a physician to visit an individual, or in families one of whom may be sick, with a view of seeking employment, as he thereby evinces a meanness of disposition and a desire to obtrude his services, where a proper confidence may not be reposed in his skill and judgment.

"4. In cases of accident or emergency from other causes, a physician is frequently summoned to visit a patient who is under the charge of another, to whom, in consequence of his being out of the way, notice of such call has not been given. It will be proper, under such circumstances, for the physician last called to resort to such remedies as the urgency of the case may require; but, if the condition of the patient will admit of delay, no alteration of the treatment should be made without a previous consultation with the attending physician.

"6. As there may be an honest difference of opinion amongst medical men with regard to the nature and treatment of diseases, it should be deemed dishonorable, and a violation of medical ethics, for one physician to charge another with malpractice, or to throw out any insinuation that he has treated a case improperly, except such accusation be made before legitimate judges, or such persons as are properly empowered or constituted to hear and investigate the circumstances of the case.

"The situation of a physician, the character of his profession, and the nature of his intercourse with the sick, must of necessity render him, to a certain extent, the confidant of families, and familiar with the foibles and infirmities of individuals. He should therefore regard it as a sacred obligation to conduct himself with the most scrupulous regard to secrecy; to maintain the most honest and chaste observance of the confidence reposed in him, and never to divulge, except when compelled, in obedience to the laws of the country, the nature of the malady he is called upon to treat, the private affairs of families or individuals, the faults or infirmities which may fall under his observation, or any circumstance that could tend to wound the feelings or stigmatize the character or reputation of those whose confidence he enjoys. The force and necessity of this obligation are indeed so great, that professional men have, under particular circumstances, been protected in their observance of secrecy, even by courts of justice.

* * *

"11. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities, to maintain its dignity and honour, to exalt its standing, and extend the bounds of its usefulness. He should therefore observe strictly such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relating to the faculty as a body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have by their labours brought it to the honorable and elevated condition in which he finds it."

Such are a few of the rules laid down as regards the "duties of physicians to each other."

In the section on the Duties of the Faculty in relation to quackery, the profession in Baltimore do not accord with their brethren in Great Britain, on the subject of offering advice to the poor, gratis. "The honour and importance of the profession," say they, "render it incumbent on its members to maintain its respectability, and avoid every act which could compromise its dignity, or forfeit the high respect and confidence reposed in it. He, therefore, who resorts to unapproved methods of practice, dispenses secret nostrums, or employs intrigue and artifice to secure business, degrades the medical character, and lowers himself to the level of a mere quack. It is also derogatory to the dignity of the profession, and constitutes a species of quackery, to resort to public advertisements or private cards or handbills, inviting the attention of individuals affected with particular diseases, publicly "offering advice and medicine to the poor, gratis," promising radical cures, and stipulating for "*no cure no pay*," publishing cases and operations in the daily prints, or suffering such publications to be made; boasting of cures and remedies; adducing certificates of skill and success, or any other similar acts which are commonly resorted to by known quacks and gross pretenders."

Of the rules of "Conduct to be observed in relation to Consultations," the following are of universal application.

"A physician who is called upon to consult, should observe the most honorable and scrupulous regard for the character and standing of the gentleman in attendance: his practice, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth and honesty, and no hint or insinuation should be thrown out which could impair the confidence reposed in him or affect his reputation. He should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practised by the dishonest for the base purpose of gaining applause or ingratiating themselves into the favour of families and individuals."

"As a regular medical education affords presumptive evidence of professional abilities and acquirements, and the only acknowledged right of an individual to the exercise and honours of the profession, no consultation should be held with any individual who has not complied with the laws enacted for the proper regulation of the practice of medicine in the State in which he resides, or who is not in possession of a diploma from some medical college or university of known and acknowledged respectability. Consultations should, under no pretext, be held with unqualified persons or quacks, or with such members of the profession as have by improper conduct outraged its dignity and respect."

If an attention to professional etiquette be important where the profession is divided, as in Great Britain, in such sort that the apothecary is the regular family attendant, whilst the physician or surgeon is called in only in consultation, an attention to it is obviously still more requisite where, as in the United States, there is but one class of practitioners, and where it is therefore easy for the consulting physician, who may not be overscrupulous, to supplant the family attendant. Hence it is that many of the State Societies have published codes of medical ethics for the guidance of their members.

ART. II. OF THE REMUNERATION OF THE MEDICAL PROFESSION.

The fees for professional attendance differ somewhat in different cities and districts of the Union. For an ordinary visit made by the family attendant, the remuneration is much the same everywhere; and the same may be said of the consulting physician, his first visit entitling him to the sum charged in the following tables, and the subsequent visits being usually treble those of the primary attendant.

To guide the physician in making his charges for services rendered, and to prevent disputes on the part of the recipient of such services, &c. tables have been formed in many of the cities; of which those of New York, Baltimore, and Charleston are at this time before me. The following tabular view will exhibit the comparative rates. Those in the first table were established by associated physicians and surgeons of the city of New York, in December, 1815, and approved by the New York County Medical Society, in January, 1816: those in the second were adopted by the Medico-Chirurgical Society of Baltimore, and other members of the medical profession of that city, in 1832: and those in the third by the members of the Medical Society of South Carolina, in the years 1792, 1804, 1813, and 1821.

A. Comparative Table of the Medical, Surgical, and others Fees, of New York, Baltimore, and Charleston.

	NEW YORK.	BALTIMORE.	CHARLESTON.
			£ s. d.
For the first visit	0 to 2 dollars*	1 to 2 dollars	0 5 0†
Every subsequent visit	0 to 2 dollars	1 ...	
For a single visit and advice in } special cases . . . . . }	.....	2 to 10 ...	
First consultation visit	5 ...	5 ...	3 5 4
Each ditto after the first	3 ...	1 to 2 ...	0 10 0
Opinion in writing‡	10 to 15 ...	5 to 10 ...	1 to 3 guineas.
Advice at the physician's house, } according to its importance }	.....	1 to 10 ...	
Advice at the physician's house, } at night§ . . . . . }	.....	2 ...	0 10 0||
Visiting at night§	7 ...	5 ...	
Detention	{ 3 doll. per hour 25 doll. per day }	.....	{ 0 10 0 per hour. }
Detention in any case at patient's } house during the night|| }	.....	5 to 20 ...	
Visit at a distance, per mile; night } visit double¶ }	1 50 c.	1 ...	
First visit in epidemic or other dis- } eases, where personal danger is }	5 ...	.....
Each succeeding visit, under the } same circumstances }	3 ...	.....
For a requested visit after dark . . . . .	.....	.....	0 10 0
For rising out of bed and visiting, } according to the weather and }	.....	.....	£1 to £2
Case of midwifery, natural	25 to 35 ...	10 to 25 ...	{ 7 0 0 to 11 13 4 }
Ditto, preternatural	36 to 60 ...	25 to 50 ...	{ 11 13 4 to 18 13 4 }

* Visits in haste charged double in New York.

† Currency 4s. 8d. to the dollar.

‡ By letter.

§ "The night is considered, in these cases, as beginning at ten o'clock p.m., and ending at sunrise."—Baltimore.

|| After having gone to bed.—Charleston.

¶ Baltimore,

	NEW YORK.	BALTIMORE.	CHARLESTON. £ s. d.
Extracting placenta alone . . . . .	.....	10 to 25 dollars	
Visit and advice given to midwife, } in cases of labour . . . . . }	..... .....	.....	7 0 0
Bleeding	2* dollars	50 c. to 1 dollar	0 9 4
in the jugular vein	5 ...	.....	1 3 4
Arteriotomy . . . . .	.....	.....	1 3 4
Extracting a tooth	1† ...	50 c. to 1 dollar	
Vaccination	5 to 10 ...	2 to 5 dollars	{ 1 3 4 to 2 2 0
Case of gonorrhœa or syphilis, (fee } in advance) . . . . . }	.....	10 to 50 ...	
Case of gonorrhœa	15 to 30 ...	.....	{ 3 10 0 to 7 0 0
Case of syphilis	25 to 100 ...	.....	{ 3 10 0 to 23 6 8
Amputation of large limbs	50 ...	25 to 75 ...	5l. to 7l.
of great joints	100 to 150 ...	50 to 100 ...	{ 23 6 8 to 35 0 0
of fingers and toes	10 ...	5 to 20 ...	1 0 0
of ditto, through tarsal } or metatarsal bones }	.....	25 to 50 ...	{ 4 13 4 to 7 0 0
Excision of diseased joints . . . . .	.....	50 to 100 ...	
Operation for necrosis and exostosis . . . . .	.....	30 to 50 ...	{ 5 16 8 to 11 13 4
of trepanning	100 ...	30 to 50 ...	10 0 0
Reduction of dislocations	5 to 20 ...	10 to 50 ...	10s. to 14l.†
Adjustment of fractures of long bones	10 to 30 ...	10 to 30 ...	1l. to 7l.
Lithotomy	150 ...	50 to 200 ...	10 0 0
Reduction of hernia	10 to 25 ...	5 to 20 ...	1l. to 5l.
Operation for strangulated hernia	125 ...	25 to 100 ...	10l. to 15l.
Important operations on the eye . . . . .	.. ..	20 to 100 ...	
Extirpation of the eye	100 ...	.....	18 13 4
Minor operations on the eye . . . . .	.....	5 to 20 ...	
Dressing recent wounds, opening } abscesses, introducing seton or } issue, &c. }	5 dollars, seton 2 dollars, issue	1 to 10 ...	1s. to 1l.
Each dressing, in addition to visit	1 to 5 ..	50 c. to 2 ...	Ditto
Extirpation of polypus . . . . .	.....	5 to 30 ...	7 0 0
of tumours	5 to 50 ..	5 to 50 ...	
of tonsils	25 ...	.....	7 0 0
Operation for fistula in ano or in } perineo }	50 ...	10 to 50 ...	{ 4 13 4 to 10 0 0
Passing catheter or bougie	5§ ...	1 to 5 ...	10s. to 1l. 10s.
Paracentesis of the thorax, abdo- } men, or bladder }	15 to 25, abdomen 50, thorax	5 to 20 ...	{ 3l. abdomen and thorax, 4l. 13s. 4d. bladder
Operation for hydrocele . . . . .	.....	5 to 30 ...	7l. to 10l.
for aneurism	25 to 200 ...	25 to 100 ...	5l. to 35l.
Ligature of arteries in cases of wounds . . . . .	.....	25 to 50 ...	
Operation for harelip	25 ...	10 to 30 ...	2l. to 5l.
Cupping	1 to 5 ...	.....	1 0 0
Dressing blister	1 ...	.....
Scarifying eye	5 ...	.....
Puncturing œdematous swellings	2 ...	.....
Extracting calculus from the urethra	20 to 30 ...	.....	4 13 4

* "In arm or foot."—*New York*.

† At the patient's house, two dollars.—*New York*.

‡ "Where the bone has been out of place for any considerable time, the charge for reduction is double."—*Charleston*.

§ The first time. Two dollars each succeeding time.—*New York*.

	NEW YORK.	BALTIMORE.	CHARLESTON.
			£ s. d.
Reducing prolapsus ani	5 dollars	.....	2 6 8
Opening abscess	1 to 5 ...	.....	5s. to 15s.
Amputation of the breast	50 ...	.....	10 0 0
of the penis	20 ...	.....	11 13 4
Extirpation of testis	50 ...	.....	10 0 0
Perforating rectum	25 ...	.....	5 16 8
nostrils, external ear, }	5 to 25 ...	.....	{ 1 3 4 to
vagina, or urethra }	3 to 5 ...	.....	{ 5 16 8
Dividing frænum linguæ or of penis	10 ...	.....	1 3 4
Operation for phymosis	40 ...	.....	10 0 0
fistula lachrymalis	10 ...	.....	10 0 0
paraphymosis	125 ...	.....	10 0 0
cataract, by depression	150 ...	.....	10 0 0
by extraction	25 ...	.....	5 0 0
Bronchotomy	10 ...	.....	2 6 8
Circumcision	2 ...	.....	1 3 4
Preparing and administering enema . . . . .	.....	.....	3 0 0
Extirpation of cancerous lip . . . . .	.....	.....	1l. to 2l.
Opening sinuses . . . . .	.....	.....	1l. to 5l.
Extirpation of hemorrhoids . . . . .	.....	.....	10s. to 3l. 10s.
Arresting hemorrhage . . . . .	.....	.....	0 10 0
Scarifying . . . . .	.....	.....	0 5 0
Electrical operations . . . . .	.....	.....	10s. to 1l. 10s.
The operation of sounding . . . . .	.....	.....	3l. to 5l.
Puncturing the tympanum . . . . .	.....	.....	3 5 4
Inoculation . . . . .	.....	.....	7l. to 15l.
Stricture of the urethra (case of) . . . . .	.....	.....	1 3 4
Opening a lumbar or other large } . . . . .	.....	.....	0 10 0
abscess . . . . .	.....	.....	{ 2 6 8 to
Opening paronychia . . . . .	.....	.....	{ 4 13 4
Extracting foreign bodies from the } . . . . .	.....	.....	{ 4 13 4
œsophagus and other passages } . . . . .	.....	.....	{ 4 13 4
Reducing prolapsus uteri . . . . .	.....	.....	{ 2 6 8 to
Treating rupture of the tendo Achilles . . . . .	.....	.....	{ 4 13 4
Tying varicose veins of the leg & thigh . . . . .	.....	.....	4 13 4
Extracting extraneous substances } . . . . .	.....	.....	{ 2 6 8 to
from gunshot and other wounds } . . . . .	.....	.....	{ 4 13 4
Extracting foreign substances from } . . . . .	.....	.....	4 13 4
the cavities of joints } . . . . .	.....	.....	2 6 8
Operation for ranula . . . . .	.....	.....	23 6 8
artificial pupil . . . . .	.....	.....	5s. to 15s.
Application of bandages or adhesive } . . . . .	.....	.....	.....
straps . . . . .	.....	.....	5 to 20 dollars
Filling up a life-insurance policy . . . . .	.....	.....	.....

Such are the standard fees of the cities in question, but for laudable—and too often perhaps for interested—motives, smaller fees than these are occasionally charged; a bargain is made between the medical adviser and the family, to attend them for so much *per annum*, but this is properly objected to in the Baltimore Fee Table, “as a measure unequal and often unjust in its action, on one or other of the parties, and as derogatory to the character and dignity of the medical profession in general.” I have before remarked, that the fee per visit is much the same throughout the United States, both in the cities and in country situations. The “mileage,” however, varies greatly. In the older settled States, not more than thirty-seven and a half cents per mile being charged; whilst, in the newer, to the south and west, the compensation is much the same as in the large cities,—a dollar per mile.

In Louisiana, Alabama, Mississippi, a fine field is offered for professional exertion. The proprietors of large cotton and sugar plantations require the constant attention of the physician, and remunerate him well. It is not unusual for the bill for professional services, on one of these estates, to amount to

twelve or fifteen hundred dollars. Opportunities for investing money to advantage are perpetually occurring; so that the practitioner who is industrious and prudent speedily obtains enough to enable him to purchase a plantation, and to quit his arduous vocation: hence it is uncommon to meet with any but young practitioners in these situations. The great mass of those who are educated in the medical schools of Philadelphia and Baltimore, Lexington, and Cincinnati, seek the southern regions of their country; and, of late, medical colleges have been established in the south for the education of those whose circumstances or inclination do not permit them to repair to the more distant institutions.

In the larger cities of the Union, it is customary for the physician, as in Europe, to send his prescriptions to the apothecary, or *pharmacien*, to be compounded. Still there are many who furnish their own medicines, and in country situations such must necessarily be the case universally. In the cities the pharmaceutical, like the medical, charges have been established by the same Societies: such at least is the case with the Medical Societies of New York and South Carolina. The fee-table of the Medico-Chirurgical Society of Baltimore is defective in this respect.

B. *Charges for Medicines supplied by the Druggists.*

	NEW YORK.		CHARLESTON.		
	dol.	cen.	£	s.	d.
A single prescription furnished	0	50	...	...	...
Pills, per dozen	0	75	...	...	...
Boluses, each	0	50	...	...	0 3 0
Electuaries, per ounce	1	0	...	...	0 7 6 by the gallipot.
Infusions, per pound	2	0	...	...	...
Solutions, per pound	1	50	...	...	...
Tinctures, per ounce	0	50	...	...	...
Ointments and cerates, per ounce	0	50	...	...	...
Blistering plasters, according to size	1 50 to 2	0	...	...	0 2 4 to 0 4 8
Other plasters	0	50 to 2 50	...	...	...
Decoctions, per pound	2	0	...	...	...
A single medicine dispensed without visit	1	0	...	...	...
An anodyne draught	0	50	...	...	...
For an emetic or cathartic	...	...	...	...	0 1 6
Mixtures, decoctions, or infusions, in phials, each	...	...	...	...	0 5 0
Powders, according to their number and qualities, each, from 1s. to	...	...	...	...	0 1 6
Pills, by the dose	...	...	...	...	0 1 0
Draughts and other active medicines taken at once	...	...	...	...	0 3 0
For all mixtures, decoctions, or infusions, containing from 1 oz. to 2 lbs. in phials, from 5s. to	...	...	...	...	0 15 0
For materials for decoction or infusion, in papers, from 2s. 4d. to	...	...	...	...	0 9 4
For active medicines taken by drops, in phials, from 5s. to	...	...	...	...	0 15 0

SCALE OF MEDICAL FEES FOR THE KINGDOM OF BAVARIA, FIXED BY A ROYAL ORDONNANCE, BEARING DATE MARCH 31, 1836.

I. *Fees for Physicians and Surgeons, regularly educated and licenced.*

A. For Visits, Consultations, Cadaveric Examinations, Certificates, Chemical Examinations.

From Fl. Kr.* to Fl. Kr.

1. For visits to patients residing in the same place with the doctor, the suburbs included:

a. For the first visit 0 30 to 1 12

* The English equivalent for a floren is about twenty pence (1s. 8d.), and for a kreutzer about one-third of a penny, there being sixty kreutzers in the floren.

	From Fl. Kr.	to	Fl. Kr.
b. For every other visit	0	15	0 45
c. For night visits, (i.e. from 9 P.M. to 6 A.M.) the above doubled.			
2. For prescribing at the patient's home, with or without a written prescription	0	12	0 36
If there happen to be in a family, or in a public establishment, several members sick at the same time, the fee is increased by one half.			
3. For consultations with one or more physicians:			
a. For the first (by day)	1	30	5 0
(by night)	one half more.		
b. For the other ordinary visits (by day)	0	24	1 12
(by night)	the above doubled.		
4. For advice by correspondence:			
a. With a patient	1	0	3 0
b. With a doctor	2	0	4 0
c. With a written case, prescriptions, and opinion	3	0	9 0
5. For the required or necessary stay of the physician with a patient:			
a. By day, for each hour	0	48	1 36
b. By night, ditto	1	0	2 0
6. Certificates:			
a. For a patient previously known, (exclusive of the stamp)	0	36	1 12
b. For an unknown patient, after enquiry into his state of health, (excl. of the stamp)	1	12	2 24
7. For a Report to some public body:			
a. Simple	0	48	1 24
b. With a history of the case, or stated opinion	3	0	8 0
8. For the inspection of a corpse, such as is requisite in a judicial case, with or without a report:			
a. Previously to the supervention of putrefaction	1	30	3 0
b. After ditto	2	0	4 0
9. For conducting a cadaveric examination, with the minuteness requisite in criminal cases, with or without a report:			
a. Previously to putrefaction	3	0	5 0
b. After ditto	4	0	8 0
c. For a child	2	0	4 0
10. For attending at an examination of a dead body:			
a. Before putrefaction	2	0	3 0
b. After ditto	3	0	5 0
11. For embalming a body:			
a. Of a child, (the materials not included)	15	0	30 0
b. Of an adult, (ditto)	30	0	60 0
12. For the Report of a post-mortem examination, (according to the difficulty and importance of the case)	3	0	6 0
13. For being present at the inspection of the body of an animal suspected of rabies or other infectious disorder	1	30	2 30
Compensation must be made over and above for loss in clothes and instruments.			
14. Examination of a druggist's shop, on the requisition of a complainant	10	0	15 0
15. Chemical examination after poisoning, with a report	6	0	24 0
16. requiring various tests, as, e.g.			
of vinegar	2	30	4 0
of wine, beer, &c.	2	0	4 0
17.			

From Fl. Kr. to Fl. Kr.

N.B. In these examinations, the price of tests may be also reckoned over and above. The fees for No. 15, 16, and 17, the physician only receives when he undertakes the examination personally; for the mere overlooking this, he only receives one half.

18. If any of the foregoing categories requires the physician to travel from his usual place of residence, he charges, over and above, for the time consumed, his maintenance inclusive:

a. For half an hour	.	.	.	.	0 30 ..	0 48
b. For the first hour	.	.	.	.	1 0 ..	1 36
c. For each of the three following hours	.	.	.	.	0 30 ..	0 48

Besides a decent conveyance; or, in lieu of this, a sum equivalent to the ordinary carriage-hire.

19. If the absence exceeds four hours, the fee is 5 fl.; and if the distance renders it necessary to be from home a night, it is 8 fl.

B. For Chirurgical Operations.

20. For slight, easy, and short operations, and with the simplest and most common instruments; e.g. simple incisions, the taxis, punctures, sutures, ligature of vessels, removal of foreign bodies from cavities easily accessible, introduction of the catheter, extirpation of small tumours, and the like 1 0 .. 10 0

N.B. In the application of this regulation, regard is to be had to the difference of the operation; advancing from the simple incision up to the difficult scientific operations.

21. For the greater operations, consisting of several parts, and requiring a special apparatus of instruments, as well as a frequently repeated and close practice; e.g. trepanning the skull, the hare-lip operation, amputation of the female mamma, of the larger limbs, operation for hydrocele, fistula in ano, castration, setting of dislocated and fractured limbs, removal of large tumours, &c. 10 0 .. 30 0
22. For the most capital operations, such as require for their performance the greatest skill; e.g. the operation for cataract, for artificial pupil, the rhinoplastic operation, bronchotomy, operation for hernia, lithotomy, for aneurism, &c. 30 0 .. 80 0

c. For Obstetrical Operations.

23. For examination to ascertain the existence of pregnancy, of previous delivery, diseases of the female organs, &c.
- | | | | | | | |
|--------------------------|---|---|---|---|---------|------|
| a. Of a sound person | . | . | . | . | 0 48 .. | 1 20 |
| b. Of an infected person | . | . | . | . | 1 12 .. | 2 40 |
24. For an easy, natural labour 5 0 .. 11 0
25. For a natural labour, lasting one day and night 8 0 .. 15 0
26. For twins, one half more.
27. For completing a breech or foot presentation, without previous turning, and without the use of forceps 5 0 .. 12 0
28. For delivery requiring turning:
- | | | | | | | |
|--|---|---|---|---|---------|------|
| a. In ordinary cases | . | . | . | . | 5 0 .. | 12 0 |
| b. In cases rendered difficult from the position of the child, or strong contraction of the uterus | . | . | . | . | 10 0 .. | 20 0 |

	From Fl. Kr.	to Fl. Kr.
29. For a delivery by the forceps:		
<i>a.</i> For an easy case	5 0	12 0
<i>b.</i> For a difficult case, from the high position or the wedging of the head	8 0	16 0
30. For a forceps delivery, with perforation	12 0	20 0
31. For turning, complicated with dismemberment	12 0	20 0
32. For removing a strongly encysted or adherent placenta	5 0	10 0
33. For the operation of imperforate vagina	4 0	8 0
34. For laying open a cicatrised os uteri	6 0	12 0
35. For the Cæsarean operation, without regard to whether the child live or die:		
<i>a.</i> On a living person	15 0	30 0
<i>b.</i> On a dead person	6 0	12 0
36. Extirpation of the uterus	24 0	40 0
37. For extirpation of part of the uterus	12 0	30 0
38. For replacing an inverted uterus	6 0	12 0
39. For replacing a descent of the vagina, uterus, or rectum	2 0	4 0
40. For applying a pessary	1 30	3 0
41. For inducing an artificial miscarriage	6 0	12 0
42. For manual assistance in threatened uterine hemorrhage	2 0	8 0
43. For the ligature of a vaginal, uterine, or anal polypus	4 0	8 0
44. For removal of one of the nymphæ	1 0	2 0
45. For removal of an immature ovum or mole	2 0	4 0
46. For injections	0 48	1 20

II. Fees for Dentists.

47. For the drawing of a tooth	0 12	0 48
48. For the drawing of a root or stump	0 24	1 0
49. For cauterizing a tooth, with the actual cautery		
50. For filling up a tooth	0 12	0 48
51. For cleaning the whole set of teeth	2 0	4 0
52. For boring or piercing a tooth	0 30	1 0
53. For filing a stump or filing through a tooth	0 30	1 0
54. For the operation of a tooth-fistula (?)	1 12	2 0
55. For straightening an irregular tooth in a child	0 36	1 12
56. For preparing and fixing an artificial tooth, the previous operation included	2 0	5 0
57. For fastening a tooth	0 30	0 48
58. For scarifying the gums, or for any other slight operation on the gums	0 12	0 36

N.B. 1. If any of the foregoing operations is performed out of the dentist's own house, an additional charge of 20 krs. is made.

2. When several teeth require the same operation, then half the stated charge is to be made for each after the first.

3. The materials expended in certain operations,—as, for example, gold,—is to be charged separately.

III. For Cuppers and Apothecaries.

59. For the application of a dry cupping-glass	0 2	0 4
For each succeeding one, one-half ditto.		
60. For the application of the scarificator	0 6	0 12
61. For bloodletting in the arm or foot	0 12	0 24
62. For the application of leeches, (exclusive of their price,) for each leech	0 3	0 6
63. For scarification with the knife	0 12	0 24
64. For the application of a blister or sinapism	0 6	0 24
65. For the application of an exutory	0 12	0 24

						From Fl.	Kr.	to	Fl.	Kr.
66.	For making an issue	.	.	.	.	0	20	..	0	30
67.	For introducing a seton	.	.	.	.	0	36	..	1	0
68.	For giving an enema	.	.	.	.	0	12	..	0	24
69.	of tobacco smoke	.	.	.	.	0	24	..	0	40
70.	For injecting a fistulous opening	.	.	.	.	0	12	..	0	24
71.	For opening an abscess	.	.	.	.	0	15	..	0	30
72.	For extirpating a corn, wart, or small tumour	.	.	.	.	0	30	..	1	0
	For several, half the price for each.									
73.	For stopping bleeding at the nose, without instruments					0	24	..	0	36
	with instruments					1	0	..	2	0
74.	For drawing off the urine:									
	a. In men	.	.	.	.	0	30	..	1	0
	b. In women	.	.	.	.	0	15	..	0	24
	When repeated, half the above.									
75.	For the application of caustic	.	.	.	.	0	12	..	0	24
76.	For the first dressing of a simple wound, including the visit					0	20	..	1	0
77.	For the first dressing of a complicated wound with fracture, gangrene, &c., the visit included					0	30	..	1	12
78.	For each succeeding visit in the above cases:									
	a. By day	.	.	.	.	0	9	..	0	12
	b. By night	.	.	.	.	0	15	..	0	24
	c. In the country, by the hour, going and coming					0	15	..	0	24

79. For examination of a pregnant or other woman	0	24	..	0	36
80. For a common delivery, not lasting over twelve hours	1	0	..	3	0
81. For every hour after twelve	0	6	..	0	12
82. For twins, double the above.					
83. For a delivery, with turning	1	30	..	2	0
84. For removing an imperfect ovum or mole	0	48	..	1	30
85. For giving an enema or vaginal injection, not during pregnancy or the puerperal state	0	9	..	0	15
86. For the introduction of the catheter	0	12	..	0	20
87. For resuscitating an infant apparently dead, without perceptible pulsation of the heart or respiration	1	30	..	3	0
88. For assisting at a birth superintended by an accoucheur	1	0	..	2	0
89. For each visit to a lying-in woman, including the usual care of the mother and child, when the distance out and home does not exceed a league	0	12	..	0	18

N.B. 1. For loss of time in the execution of their office beyond the precincts of their place of residence, midwives, like cuppers, charge half the fee appropriated to surgeons, viz. for each hour 9 to 15 kreutzers.

2. For medicaments supplied by the midwives, one-half more may be charged than by the druggists.

3. For examinations and attendances in cases of contagious or disgusting diseases, one-half more than the customary fee may be charged.

90. For ordinary, not contagious diseases, for every twenty-four hours, (including food and drink thrice a day)	0 24 ..	0 40
91. When food and drink are not supplied, the allowance for these will be regulated by the customs of the place.		
92. In cases of contagious or very disgusting diseases, and in madness, the charge is one-half more.		
93. If the nurse is called into the country, for every league the same allowance as for midwives (including food)	0 9 ..	0 15

VI. *For Veterinary Surgeons.*

94. Veterinary surgeons, in relation to their duties in the case of epidemic diseases or other state duties, are to be paid as country doctors and surgeons of the first class.

N.B. Owing to the recent establishment of this department of medicine, as the customary charges, from which a scale might be framed, have not yet been fixed, the fixing a fee for individual cases of service is for the present postponed. *Henke's Zeitschrift für die Staatsarzneikunde*, iii. heft, 1836.

N.B. In the present statistical relations of the medical profession in England, the preceding Tables of Fees cannot fail to be interesting to our readers. It is worthy of notice, that the one comes from the freest and the other from one of the most despotic states; and that in the former the scale was fixed by the practitioners themselves, in the latter by the government. Even in Bavaria, however, doubtless the scale of fees originated with the profession.—EDS.

PRIZE ESSAYS FOR 1837-8.

1. *By the Royal Academy of Medicine of Paris.*

1. THE Academy offers a prize of two thousand francs for the best Essay on “the Physiological History of Menstruation, the influence exercised by this function on diseases, and the effect of diseases upon the secretion.” To be awarded in 1837.

2. *Portal Prize.* On “the History of the Discoveries relating to the Venous System, from Morgagni until the present day, and on the influence which these discoveries have had upon the knowledge and treatment of diseases.” Prize, six hundred francs, to be awarded in 1838.

3. *Bernard Prize.* On “the Influence of Physical and Moral Education in producing Excitability (*surexcitation*) of the Nervous System, and on the Diseases resulting from such Excitability.” The prize, of fifteen hundred francs, will be awarded in 1838.

N.B. The essays, enclosed in the usual form, are to be sent to the secretary's office at the Academy, before the 1st of March, 1837 and 1838.

2. *By the Society of Corresponding Physicians at St. Petersburg.*

ON HOMŒOPATHY.

THE Society of Corresponding Physicians at St. Petersburg, acting on the conviction that all the cases of disease under the homœopathic treatment are only examples of the natural progress of morbid conditions of the organism, such as rational physicians should seldom be permitted to produce by their intentionally doing nothing, requires—That all the recorded cases in the whole range of homœopathic literature be classed, critically examined, and compared one with the other, so that the progress of development of entire classes and genera of disease, as well as individual cases, may be placed in as clear a point of view as possible; that the results of these enquiries be compared with those observed under the Hippocratic method of treatment; and also that the symptoms which usually precede the favorable and unfavorable termination of diseases homœopathically treated be described, as well as the change of form or metastasis of morbid affections, when these occur. The Society wishes, by means of this task, to give rise to a complete and critical application of the homœopathic cases of disease already published, for the purpose of discovering the laws of development of the pathological phenomena in the human organism, so that the remarkable schism of the Hahnemannians in rational medicine may not be without profit to the latter. All recriminations against homœopathy as a science, and against its supporters as physicians, must be avoided. The essays are to be written in the Russian, Latin, French, or German language; they must be sent in, with motto and name under seal, free of expense, by the

15th (27th) July, 1837, addressed to Mr. State-Counsellor Fuss, permanent secretary of the Imperial Academy of Science at St. Petersburg.

The prize, fifty Dutch ducats, (about 24*l.*) will be awarded on the anniversary of the Society, 26th November, (8th December,) 1837, and the accepted essay afterwards published by the Society; for which the author shall receive the usual remuneration, over and above the prize.

St. Petersburg; Jan. 28, 1836.

DR. WEISSE,
DR. SEIDLITZ.

Med. Zeitung. 30 März, 1836.

3. By the St. Petersburg German Medical Society.

ON THE EGYPTIAN OPHTHALMIA.

A GENTLEMAN, having suffered from the destructive influence of the Egyptian ophthalmia, and desirous, for the benefit of society, that the nature of the disease, and most effectual means of curing it, should be discovered and promulgated, has presented to the German Medical Society at St. Petersburg the sum of one thousand rubles in money, (about 200*l.* sterling,) upon condition that the Society propose a prize essay on the above disease, examine the dissertations of candidates, and reward the author of the paper which, in their judgment, shall be the most satisfactory, with the full amount of the money thus intrusted to them. The Society, joyfully assenting to the wishes of the donor of this prize, hereby invite all practitioners in diseases of the eye to send in a complete Treatise on the Egyptian Ophthalmia.

The treatises must be written either in Latin, French, English, or German; must be sent in by the 15th (27th) September, 1837, with the motto and the name of the author sealed up, free of expense, and directed to the secretary of the German Medical Society at St. Petersburg. The presentation of the prize will take place on the foundation day of the Society, January 21, (February 2d,) 1838. The successful essay will be published in the next ensuing volume of the accepted miscellaneous treatises of the Society, with honorable distinction: the others will be returned to the respective authors, (whose names will remain unknown,) if required.

St. Petersburg; Jan. 21, 1836.

DR. BUSCH, Director.
DR. SEIDLITZ, Secretary.

Medicinische Zeitung. 30 März, 1836.

HOMŒOPATHY.

AT a meeting of the French Academy of Medicine, held on the 27th of January, 1836, a letter was read from the minister of public instruction, requesting the opinion of the Academy on the propriety of the government permitting the establishment of a homœopathic hospital and dispensary. It will be necessary to inform our readers that at present it is illegal in France to form a society consisting of more than twenty persons, for any object whatever, without the sanction of the government. In consequence, the Homœopathic Society applied to the government to permit the immediate establishment of a dispensary, where all diseases should be treated gratuitously on the homœopathic system; and, secondly, that, when the Society had collected the necessary funds, a clinical hospital might be instituted, to teach the new system. The minister, thinking his decision involved not only a scientific opinion but an important question of medical police, referred the matter to the Academy, who appointed a committee to report upon it. MM. L'Herminier, Andral, and Lisfranc were some of those selected; and M. Adelon drew up the Report. As this is of some length, our space will only allow us to give a mere outline of it.

The committee state that, to form an absolute judgment, it would be necessary to read all the principal works on the subject, so as to submit the principles of the new system to a sound criticism, and to judge them *à priori*, guided by

the experience in medicine of the last two thousand years; and also to verify the statements by experiment. The first might be accomplished, but the second could not possibly in the time allotted to the committee. Fortunately, however, it is not necessary to undertake this difficult task in order to answer the question made by the minister, whose demand refers to homœopathy relatively to medical police. As hospitals are for the gratuitous relief of the poor, and as these institutions are under the immediate superintendence of the government, it is necessary that it should be assured of their utility. It is therefore as if the minister asked, "Is homœopathy so universally approved that I may share in the responsibility of its exclusive application in the way proposed? Can I present it to the poor of Paris with the certainty it will be always useful, and never hurtful?" If put in this form, the question can be answered without difficulty. The committee are of opinion that the proofs of the doctrine of homœopathy are far from producing conviction. Looked at in every point of view, it is doubtful. Judging it theoretically, many of its dogmas are contradictory, contrary to sound logic, and opposed to the experience of the majority of physicians for ages; the principles are at least still matters for controversy. Considered practically, the proofs are still to be made, and, if advisable, would require time, and the concurrence of the profession generally. In a word, the homœopathic doctrines, instead of being demonstrated, are yet to be studied; and consequently the government cannot be advised to take upon themselves the responsibility of its application.

On receiving this Report, the Academy decided that it was too reserved and too temperate in its opinion of homœopathy, and determined on an answer to the minister repelling it as a dangerous mode of treatment, and the offspring of quackery.

Annales d'Hygiène publique et de Médecine Légale. Avril, 1836.

THE BRITISH MEDICAL ASSOCIATION.

ON Thursday, the 27th October, a meeting of medical practitioners was held, pursuant to public notice, at the Bridge-House Hotel, Southwark, for the purpose of establishing a new medical society. The meeting was numerously attended. George Webster, Esq., of Dulwich, was in the chair; and, in the course of his opening speech, he detailed the plan upon which it was proposed to found the society, and its nature and objects. The following propositions contain a general outline of the views and intentions of the gentlemen who have taken a lead in this measure.

"It is proposed, 1st. That the medical general practitioners of England and Wales shall form themselves into an Association, for the purpose of exciting and cherishing kindly and honorable feelings towards each other, and of guarding, watching over, and protecting the rights, privileges, interests, and respectability of the profession.

"2dly. That the society should be called 'The British Medical Association.'

"3dly. That those gentlemen willing to become members, shall, at an early meeting, appoint proper officers: such as a President, Vice-President, Secretaries, Councillors, Committees, &c., and shall form a code of laws for the government of the Association, to be submitted to the consideration of a subsequent general meeting.

"4thly. That the Association shall hold frequent meetings for the transaction of business.

"5thly. That it shall oppose all encroachments from without, and all dishonorable or unprofessional conduct among its members.

"6thly. That it shall, by all legal means, or by application to parliament, if considered necessary, endeavour to remove all professional grievances, evils, and hardships.

"7thly. That it shall protect its members from all illegal or unjust Prosecutions.

"8thly. That it shall endeavour to form a benevolent fund for the assistance of decayed members of the profession, and for the benefit of their widows and orphans.

"9thly. That, to effect these important purposes, subscriptions shall be paid by the members, in such manner as shall be hereafter agreed upon, and donations requested from their friends and the profession at large.

"10thly. That the Association shall endeavour to extend its expected advantages over the kingdom, by corresponding with, and inviting the co-operation of, their medical brethren in cities, towns, or local districts; and by recommending them to form themselves into societies, having the same or similar important ends and objects in view.

"11thly. That the members and their friends shall dine together at least once a year, in the metropolis; and that the Association shall, by all means in its power, endeavour to promote the welfare, prosperity, and union of its own body in particular, and uphold the dignity, respectability, and usefulness of the whole medical profession."

It is impossible to object to any thing contained in these propositions; but, as the great body of provincial practitioners are already united in a most respectable and very flourishing society having similar objects, we may be allowed to doubt whether a less comprehensive title might not be more suitable. We wish all success to the new Institution.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION. DISTRICT BRANCHES.

IN order to increase the efficiency and interest of the Provincial Association, it has been deemed expedient, by the members resident at a distance from the midland counties, acting on the recommendation of the council, contained in the Report of 1834, relative to Sectional Meetings, to embody themselves into DISTRICT BRANCHES, and to call upon all their brethren in the different districts to unite themselves with them in furtherance of the general objects of the Institution. Besides the *Eastern Branch*, established last year, and which we are happy to say has now united itself with the Parent Association, several other district branches have been formed, and are now forming, in different parts of England. By means of these Branches, the number of the members of the Association will be greatly increased, and its utility and interest much enhanced. Indeed, it seems probable that, by the arrangements now in progress, a large proportion of the whole body of provincial practitioners will belong to it before many years are expired. We shall notice the institution of these District Branches, as they come to our knowledge.

Bath District Branch.

This Branch was instituted at a meeting of the Bath members of the General Council, held at Bath, on the 18th November. The objects in the formation of this Branch are stated to be, "to uphold the general designs of the Association, and to afford to those members who are unable to attend the Anniversary meetings of the General Association, opportunity for cultivating friendly feelings, and the intercourse of social harmony with their professional brethren, at least once a year." The organization of the Branch, the nature and scope of its proceedings, are postponed to the first Sectional meeting, which is fixed to take place at Bath on the first Thursday of June. Mr. Tudor, of Bath, was elected president for the ensuing year, and Dr. Barlow secretary.

Southern District Branch.

On Tuesday, the 29th November, a meeting of the members of the profession, residing in the counties of Hants, Wilts, Dorset, Sussex, Surrey, and Berks, was held at Southampton, for the purpose of establishing a Southern Branch. The meeting was attended by upwards of seventy gentlemen from various parts of the above-named counties, all of whom seemed only desirous of being made

acquainted with the nature and objects of the proposed Branch, in order to enrol their names as members. Dr. Forbes, of Chichester, was called to the chair, and, after an excellent explanatory address by Mr. Wickham, various resolutions declaratory of the nature and objects of the Branch Association were proposed by different gentlemen, and agreed to with the greatest unanimity. The fundamental principles of the Local or Sectional Society are, 1. That its members are, *ipso facto*, members of the Parent Association, and entitled to all its privileges; and, 2. That all the public or official expenses incurred by the Branch are defrayed out of the general funds of the Association. The subordinate arrangements of the Branch Association are to be regulated exclusively by its own members. At this meeting it was determined, that the Local Society, in imitation of the general one, should have its President, Vice-Presidents, Secretaries, and Council; that it should have an annual meeting, at each of the chief towns in the district in succession, and that the papers communicated for publication by its members, after being first laid before the Local Council, should be transmitted to the General Council. Dr. Forbes, of Chichester, was elected President for the present year; Dr. Crawford, of Winchester, President Elect; W. J. Wickham, Esq. of Winchester, and Dr. Joseph Bullar, of Southampton, Secretaries; and all the members present at the Meeting, Councillors. The first general meeting of the members is to be held in the second week of June, at Winchester, under the Presidency of Dr. Crawford. Upwards of fifty new members joined the Association on the day of the Meeting; and there is little doubt that four times that number will have given in their names as members, before the general meeting in August.

PRIZE MEDALS GRANTED BY THE ROYAL SOCIETY.

Two medals have been this year granted for physiological papers published in the Society's Transactions during the last three years: THE ROYAL GOLD MEDAL, to George Newport, Esq.; THE COPLEY MEDAL, to Francis Kiernan, Esq., F.R.S., both members of the Royal College of Surgeons.

The two papers of Mr. Newport, for which the Royal Gold Medal has been awarded, are published in the Philosophical Transactions for the years 1834 and 1836. There is also a previous paper, not included within the period of award. The first paper consists of a description of the nervous system of the *Sphinx Ligustri*, or Privet Moth, during the larva and the earlier stages of its pupa state. The second paper is a continuation of the first, and contains a description of the nervous system of the same insect during the remaining part of its pupa state, and also during its perfect state, with the manner in which several ganglia which exist in the larva separately, are aggregated together to form the great thoracic and cephalic masses, and for the development of the optic nerves. The author dwells particularly upon certain peculiar nerves in this and other lepidopterous insects, which have long been well known to anatomists, but which are now described more minutely than has hitherto been done, and which, from their being distributed especially to the breathing orifices, tracheæ, and muscles, along the sides of the insect, he designates *transverse* or *respiratory* nerves. He also minutely describes the structure of the two nervous cords which are analogous to the spinal cord of man and other vertebrata; and shows that, in insects and crustacea, and by analogy in other invertebrata, these two nervous cords are each composed of two tracts, as in the human body; one of these, that which lies nearest the external surface of the body, possesses ganglia, and is believed to be the sensitive; while the second, which is nearest the viscera, like the motor tract in man, is without ganglia, closely approximated to the first, and is only clearly distinguished when it passes over the ganglia. It is upon and above these double cords that the respiratory nerves are situated, namely, nearest to the viscera. The author describes also, in the same paper, a series of corresponding changes in the nervous system in the common nettle butterfly, similar to those described by Herold in the cabbage butterfly.

The other paper by the same author, which has just appeared in the Society's Transactions for 1836, second part, is on the Respiration of Insects. It consists of a minute description of all the parts concerned in respiration, the tracheæ, spiracles, muscles, and nerves distributed to them; the manner in which respiration is performed in insects, the condition of respiration at particular periods and states of the insect; and the duration of life in different media. In this paper many of the facts are in confirmation of the views of Dr. Marshall Hall, respecting Hybernation, of Edwards and of Treviranus. The three papers are all illustrated by plates, and do honour not only to the author, but to British physiology. We doubt not but Mr. Newport is destined to extend greatly the boundaries of our knowledge of the anatomy and physiology of the Invertebrata, and, through these, to advance our knowledge of the physiology of man.

The paper of Mr. Kiernan, for which he has received the Copley Medal, is that containing his researches into the minute anatomy of the liver, and which has been universally admitted to constitute one of the most important additions which scientific anatomy has received for many years. Mr. Kiernan's investigations and discoveries have been laid so fully before the profession, in the various medical journals, that we deem it unnecessary to give any account of them in this place.

MEDICAL GRADUATIONS AT EDINBURGH, 1836.

On the 1st of August, 1836, the Senatus Academicus of the University of Edinburgh conferred the degree of Doctor of Medicine on 126 candidates, after having gone through the appointed examinations, and publicly defended their inaugural dissertations. The list contained fifty gentlemen from Scotland; twenty-seven from England; three from Wales; twenty-seven from Ireland; and sixteen from our colonies and foreign countries. All the dissertations were in English, except one, which was in French. Our old associations are shocked by the absence of *Latin* in these exertations; and we cannot persuade ourselves that the regulations which exclude this classical language—or, which seems to be the same thing, do not render its use imperative—are not calculated to lead to a deplorable decrease of classical knowledge. Admitting the propriety of the chief examinations being in English, surely there was no necessity for banishing Latin from the thesis.

DIPLOMAS GRANTED BY THE COLLEGE OF SURGEONS OF EDINBURGH, 1835-6.

The number of gentlemen who have obtained the diploma of the Royal College of Surgeons of Edinburgh between the 31st of August, 1835, and 1st of September, 1836, is 155: viz. 103 from Scotland; 16 from England; 22 from Ireland; and 14 from the colonies.

DIPLOMAS GRANTED BY THE COLLEGE OF SURGEONS OF LONDON, 1835-6.

The number of gentlemen who have passed their examination at the College, and obtained diplomas, from September 1835 to September 1836, is 463.

CERTIFICATES GRANTED BY THE APOTHECARIES' COMPANY, 1835-6.

The number of gentlemen who have passed their examinations at Apothecaries' Hall, and obtained certificates for practice, from October 3, 1835, to September 29, 1836, is 450: of this number eighty only obtained the diploma from the College of Surgeons.

NEW REGULATIONS RESPECTING TEACHERS OF ANATOMY, &c.

Royal College of Surgeons. The Council of the College, at an extraordinary meeting, on the 1st instant, established the following Ordinance, relating to

the recognition of the certificates of teachers of anatomy and surgery in England and Wales:—

That in future no person be recognized by this College as a teacher of anatomy, physiology, and pathology, or in surgery, in England and Wales, until he shall have undergone an examination before the Council of the College on two separate days. The first examination to be in anatomy and physiology; the second in pathology, and on the principles and practice of surgery.

That no fee be demanded for these examinations; and that the recognition of the College be conveyed in the usual form of a letter from the Secretary.

By order, EDMUND BELFOUR, Sec.

November 18, 1836.

BOTANICAL PRIZE MEDALS OF THE APOTHECARIES' COMPANY.

The gold medal has been this year granted to Mr. Jenner, and the silver medal to Mr. Tegetmeir. Both these gentlemen are, we believe, pupils of the London University.

THE JACKSONIAN PRIZE OF THE COLLEGE OF SURGEONS.

The subject for 1837 is "An Inquiry into the Nature of the Processes of Suppuration and Ulceration." The Dissertations are to be addressed to the Secretary, and delivered before Christmas-day, 1837.

CHARTER OF THE LONDON UNIVERSITY.

It gives us the greatest pleasure to be able to lay before our readers the Charter of the new Metropolitan University, which has at length received the royal sanction: the Institution may therefore be considered as actually established. The provisions in it relative to the power of conducting examinations, and granting degrees in every department of medical science, possess the utmost interest to all medical men, and promise to be of the greatest advantage to the profession and to the public.

(COPY.)

Whitehall; Dec. 1, 1836.

My Lord:—I have the honour to transmit to your lordship the Charter of the University of London.

His Majesty has been pleased to approve of the appointment of your lordship as Chancellor, and of Mr. Lubbock as the first Vice-Chancellor of the University.

I feel confident that it is not necessary to recommend to your lordship either a zealous attention to the interests of learning, or a constant regard to those principles of religious freedom which have furnished motives for the royal grant.

I have no less reliance on the distinguished men who are associated with yourself and Mr. Lubbock in the government of the University.

You may be assured that, on my part also, I shall esteem it an honour to co-operate in the advancement of an Institution destined to confer the distinctions justly due to proficiency in literature, science, or art, without imposing a test of religious opinions, or binding by the fetters of the seventeenth century the talent and merit of the present enlightened age.

I have the honour to be, my Lord, your obedient humble servant,

The Earl of Burlington, &c.

J. RUSSELL.

William the Fourth, by the grace of God of the United Kingdom of Great Britain and Ireland, King, Defender of the Faith, to all whom these presents shall come, greeting: Whereas, we have deemed it to be the duty of our Royal office, for the advancement of religion and morality and the promotion of useful knowledge, to hold forth to all classes and denominations of our faithful subjects, without any distinction whatsoever, an encouragement for pursuing a regular and liberal course of education; and considering that many persons do prosecute or

complete their studies, both in the metropolis and in other parts of our United Kingdom, to whom it is expedient that there should be offered such facilities, and on whom it is just that there should be conferred such distinctions and rewards as may incline them to persevere in these their laudable pursuits. Now know ye, that, for the purpose of ascertaining, by means of examination, the persons who have acquired proficiency in literature, science, and art, by the pursuit of such course of education, and of rewarding them by academical degrees, as evidence of their respective attainments, and marks of honour proportioned thereunto, we do, by virtue of our prerogative Royal, and of our especial grace, certain knowledge, and mere motion, by these presents, for us, our heirs, and successors, will, grant, declare, and constitute

Our right trusty and well-beloved cousin, William Cavendish, Earl of Burlington,
The Right Rev. Father in God Edward Lord Bishop of Durham,

The Right Rev. Father in God William Lord Bishop of Chichester,

Our right trusty and well-beloved Councillor Henry Baron Brougham and Vaux, and

Our trusty and well-beloved George Biddle Airy, Esq., our Astronomer Royal, and Fellow of the Royal Society,

Andrew Amos, Esq., Barrister-at-Law,

Thomas Arnold, Doctor in Divinity,

John Austin, Esq., Barrister-at-Law,

Neil Arnott, Esq., Doctor in Medicine,

John Bacot, Esq., Member of the Royal College of Surgeons,

Francis Beaufort, Esq., Captain in our Royal Navy, Hydrographer of the Admiralty, and Fellow of the Royal Society,

Archibald Billing, Esq., Doctor in Medicine, and Fellow of the Royal College of Physicians,

William Thomas Brande, Esq., Vice-President of the Royal Society,

James Clark, Esq., Doctor in Medicine, Fellow of the Royal Society,

Philip Cecil Crampton, Esq., Doctor of Civil Law, Fellow of the Royal Society, and our Surgeon-General in Ireland,

John Dalton, Esq., Doctor of Civil Law, and Fellow of the Royal Society,

William Empson, Esq., Barrister-at-Law, Professor of General Polity and the Laws of England at the East-India College,

Michael Faraday, Esq., Doctor of Civil Law, Fellow of the Royal Society,

Sir Stephen Love Hammick, Bart., Member of the Royal College of Surgeons,

John Stevens Henslow, Clerk, Master of Arts, Professor of Botany in the University of Cambridge,

Cornwallis Hewett, Esq., Doctor in Medicine, and Downing Professor of Medicine in the University of Cambridge,

Thomas Hodgkin, Esq., Doctor in Medicine,

Francis Kiernan, Esq., Member of the Royal College of Surgeons,

John George Shaw Lefevre, Esq., Fellow of the Royal Society,

Charles Locock, Esq., Doctor in Medicine, one of the Physicians Extraordinary to Her Majesty,

John William Lubbock, Esq., Vice-President of the Royal Society,

Sir James M'Grigor, Baronet, Doctor in Medicine, Doctor of Civil Law, Fellow of the Royal Society, Fellow of the College of Physicians, one of our Physicians Extraordinary, and Director-General of the Army Medical Board,

Richard Rainy Pennington, Esq., Member of the Royal College of Surgeons,

Jones Quain, Esq., Doctor in Medicine,

John Ridout, Esq., Member of the Royal College of Surgeons,

Peter Mark Roget, Esq., Doctor in Medicine, Secretary of the Royal Society,

Nassau William Senior, Esq., one of the Masters of our High Court of Chancery, and Fellow of the Royal Society,

Joseph Henry Jerrard, Doctor of Laws, Principal of the Bristol College,

Richard Sheepshanks, Clerk, Fellow of the Royal Society,

John Sims, Esq., Doctor in Medicine,

Cornop Thirlwall, Clerk, Fellow of Trinity College, Cambridge,

James Walker, Esq., Fellow of the Royal Society, and Henry Warburton, Esq., Member of the Commons' House of Parliament, and Fellow of the Royal Society, —during our royal will and pleasure, and all the persons whom we may hereafter appoint to be Chancellor, Vice-Chancellor, or Fellows, as hereinafter mentioned, one body politic and corporate, by the name of the University of London, by which name such body politic shall have perpetual succession, and shall have a common seal, and shall by the same name sue and be sued, implead and be impleaded, and answer and be answered unto in every Court of us, our heirs, and successors. And we do hereby will and ordain, that by the same name they and their successors shall be able and capable in law to take, purchase, and hold to them and their successors any goods, chattels, or personal property whatsoever, and shall also be able and capable in law, notwithstanding the statutes of mortmain, to take, purchase, and hold to them and their successors, not only all such lands, buildings, hereditaments, and possessions, as may be from time to time exclusively used and occupied for the immediate purposes of the said University, but also any other lands, buildings, hereditaments, and possessions whatsoever, situate within our United Kingdom of Great Britain and Ireland, not exceeding the annual value of 10,000*l.*; such annual value to be calculated and ascertained at the period of taking, purchasing, or acquiring the same; and that they and their successors shall be able and capable in law to grant, demise, alien, or otherwise dispose of all or any of the property, real or personal, belonging to the said university, and also to do all other matters incidental or appertaining to a body corporate. And we do hereby further will and ordain, that the said body politic and corporate shall consist of Chancellor, one Vice-Chancellor, and such number of fellows or members of the Senate as we shall from time to time appoint under our sign manual; and that our right trusty and right well-beloved cousin the aforesaid William Cavendish, Earl of Burlington, be the first Chancellor, John William Lubbock, Esq., the first Vice-Chancellor, and the aforesaid Edward Lord Bishop of Durham, William Lord Bishop of Chichester, Henry Baron Brougham and Vaux, George Biddle Airy, Andrew Amos, Thomas Arnold, John Austin, Neil Arnott, John Bacot, Francis Beaufort, Archibald Billing, William Thomas Brande, James Clark, Philip Cecil Crampton, John Dalton, William Empson, Michael Faraday, Sir Stephen Love Hammick, John Stevens Henslow, Cornwallis Hewett, Thomas Hodgkin, Francis Kiernan, John George Shaw Lefevre, Charles Locock, John William Lubbock, Sir James McGrigor, Richard Rainy Pennington, Jones Quain, John Ridout, Peter Mark Roget, Nassau William Senior, Joseph Henry Jerrard, Richard Sheepshanks, John Sims, Cornop Thirlwall, James Walker, and Henry Warburton, be the first fellows and members of the senate thereof. That whenever a vacancy shall occur in the office of Chancellor of the said university, either by death, resignation, or otherwise, we will, under our sign manual, nominate a fit and proper person to be the Chancellor instead of the Chancellor occasioning such vacancy. That the office of Vice-Chancellor of the said university shall be an annual office; and the Vice-Chancellor hereinbefore named shall, at the expiration of one year from the 1st of July, 1837, go out of office, and the said fellows or members of the Senate shall, at a meeting to be holden by them for that purpose, on some day within a month before the expiration of the tenure of the said office, of which due notice shall be given, elect one other fit and proper person to be the Vice-Chancellor of the said university, and so from time to time annually; or, in case of the death, resignation, or other avoidance of any such Vice-Chancellor, before the expiration of his year of office, shall, at a meeting to be holden by them for that purpose as soon as conveniently may be, of which due notice shall be given, elect some other fit and proper person to be Vice-Chancellor for the remainder of the year in which such death, resignation, or other avoidance shall happen; such person to be chosen from among themselves by the major part of the fellows present at such meeting, and to be approved of by the Chancellor of the said university for the time being.

That we reserve to ourselves to be the visitor of the said University of London, with authority to do all the things which pertain to visitors, as often as to us shall seem meet.

That the Chancellor, Vice-Chancellor, and fellows for the time being, shall have the entire management of, and superintendence over the affairs, concerns, and property of the said university; and in all cases unprovided for by this our charter, it shall be lawful for the Chancellor, Vice-Chancellor, and Fellows, to act in such manner as shall appear to them best calculated to promote the purposes intended by the said University; and the said Chancellor, Vice-Chancellor, and Fellows shall have full power from time to time to make, and also to alter any by-laws and regulations (so as the same be not repugnant to the laws of our realm, or to the general objects and provisions of this our charter) touching the examinations for degrees, and the granting of the same, and touching the mode and time of convening the meetings of the Chancellor, Vice-Chancellor, and Fellows, and in general touching all other matters whatsoever regarding the said university; and all such by-laws and regulations, when reduced into writing, and after the common seal of the said university shall have been affixed thereto, shall be binding upon all persons members thereof, and all candidates for degrees to be conferred by the same, all such by-laws and regulations having been first submitted to one of our principal Secretaries of State, and approved of and countersigned by him.

That all questions which shall come before the Chancellor, Vice-Chancellor, and Fellows, shall be decided by the majority of the members present; and the chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote.

That no question shall be decided at any meeting unless the Chancellor or Vice-Chancellor, and five Fellows, or, in the absence of the Chancellor and Vice-Chancellor, unless six Fellows at the least shall be present at the time of such decision.

That, at every meeting of the said Chancellor, Vice-Chancellor, and Fellows, the Chancellor, or in his absence the Vice-Chancellor, shall preside as chairman, or in the absence of both, a chairman shall be chosen by the members present, or the major part of them.

That the said Chancellor, Vice-Chancellor, and Fellows for the time being, shall have full power from time to time to appoint, and, as they shall see occasion, to remove all examiners, officers, and servants of the said University.

That once, at least, in every year, the said Chancellor, Vice-Chancellor, and Fellows, shall cause to be held an examination of candidates for degrees; and on every such examination the candidates shall be examined either by examiners appointed for the purpose from among the Fellows by the said Chancellor, Vice-Chancellor, and Fellows, or by other examiners so to be appointed; and that on every such examination the candidates shall be examined in as many branches of general knowledge as the said Chancellor, Vice-Chancellor, and Fellows shall consider the most fitting subjects of such examination. And whereas it is expedient to extend the benefits of colleges and establishments already instituted, or which may be hereafter instituted, for the promotion of literature, science, and art, whether incorporated or not incorporated, by connecting them for such purposes with the University created by this our Royal charter—We do hereby further will and ordain, that all persons shall be admitted as candidates for the respective degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, or Doctor of Laws, to be conferred by the said University of London, on presenting to the said Chancellor, Vice-Chancellor, and Fellows a certificate from any of the institutions hereinafter mentioned, to the effect that such candidate has completed the course of instruction which the said Chancellor, Vice-Chancellor, and Fellows by regulation in that behalf shall determine.

That such certificates as aforesaid may be granted from our college called University College, or from our College called King's College, both situate in London, or from such other institution, corporate or unincorporated, as now is, or hereafter shall be, established for the purposes of education, whether in the metropolis or elsewhere within our United Kingdom, and as we, under our sign manual, shall hereafter authorize to issue such certificates.

And for the purpose of granting the degrees of Bachelor of Medicine, and Doctor of Medicine, and for the improvement of medical education in all its branches, as well in medicine as in surgery, midwifery, and pharmacy. We do further hereby

will and ordain that the said Chancellor, Vice-Chancellor, and Fellows, shall from time to time report to one of our principal Secretaries of State, what appear to them to be the medical institutions and schools, whether corporate or unincorporated, in this our metropolis, or in other parts of our United Kingdom, from which either singly or jointly with other medical institutions and schools in the country or in foreign parts, it may be fit and expedient in the judgment of the said Chancellor, Vice-Chancellor, and Fellows, to admit candidates for medical degrees, and on approval of such report by our said Secretary of State, shall admit all persons as candidates for the respective degrees of Bachelor of Medicine, and Doctor of Medicine, to be conferred by the said University, on presenting to the said Chancellor, Vice-Chancellor, and Fellows, a certificate from any such institution or school, to the effect that such candidate has completed the course of instruction which the said Chancellor, Vice-Chancellor, and Fellows, from time to time, with the approval of one of our principal Secretaries of State, to vary, alter, and amend any such reports, by striking out any of the said institutions or schools included therein, or by adding others thereunto.

That the said Chancellor, Vice-Chancellor, and Fellows, shall have power, after examination, to confer the several degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, Doctor of Medicine, and to examine for medical degrees in the four branches of medicine, surgery, midwifery, and pharmacy, and that such reasonable fees shall be charged for the degrees so conferred as the said Chancellor, Vice-Chancellor, and Fellows, with the approbation of the Commissioners of our Treasury, shall from time to time direct; and such fees shall be carried to one general fee fund for the payment of the expenses of the said University, under the directions and regulations of the Commissioners of our Treasury, to whom the accounts of income, and expenditure of the said University, shall once in every year be submitted, which accounts shall be subject to such examination and audit as the said commissioners may direct.

That at the conclusion of every examination of the candidates, the examiners shall declare the name of every candidate whom they shall have deemed to be entitled to any of the said degrees, and the departments of knowledge in which his proficiency shall have been evinced, and also his proficiency in relation to that of other candidates, and he shall receive from the said Chancellor a certificate, under the seal of the said University of London, and signed by the said Chancellor, in which the particulars so declared shall be stated.

Provided always, that all by-laws and regulations made from time to time touching the examinations of candidates, and granting of degrees, shall be submitted for the consideration of one of our principal Secretaries of State, to be approved of by him.

And lastly, we do hereby, for us, our heirs and successors, grant and declare that these our letters patent, or the enrolment or exemplification thereof, shall be in and by all things valid and effectual in law, according to the true intent and meaning of the same, and shall be construed and adjudged in the most favorable and beneficial sense for the best advantage of the said University, as well in all courts as elsewhere, notwithstanding any nonrecital, misrecital, uncertainty, or imperfection, in these our letters patent.

In witness whereof, we have caused these our letters to be made patent. Witness ourself, at our Palace of Westminster, the 23th day of November, in the seventh year of our reign.

By Writ of Privy Seal,

EDMUNDS.

OBITUARY.

DR. BOISSEAU.

LATELY at Metz, aged 43, François Gabriel Boisseau, M.D., a distinguished writer, and the author of several works of great merit. Dr. Boisseau was born at Brest, on the 12th of October, 1791. He entered at an early age into the army, and served in Spain and in Germany from 1810 to 1813. At the time

of the first abdication of Napoleon, he was prisoner at Dresden, and returned to France with the liberated garrison. He joined the army on the return of Napoleon from Elba, and after the battle of Waterloo was appointed Assistant to the military establishment at Val de Grâce. M. Boisseau returned to his medical studies with great ardour, and with proportionate success. In 1817, he obtained the public prizes given at Val de Grâce, and in the spring of the same year took the degree of Doctor of Medicine. During his residence at the Val de Grâce, Boisseau was the most distinguished and most philosophical advocate of the doctrines of Broussais, which he advanced and defended by his speeches and numerous writings, with singular force and effect. After the period of his graduation, he pursued his literary labours with undiminished zeal, and published many works of great merit. After the revolution in July 1830, he was appointed Physician or Professor of the Military Hospital for Education at Metz, where he died on the 2d of January, 1836.

The following is a list of the principal writings of Dr. Boisseau: *Pyrétologie physiologique, ou Traité des Fièvres*, 1 vol. 8vo.; *Nosographie Organique, ou Traité de Médecine pratique*, 4 vols. 8vo.; all the medical articles of the *Dictionnaire abrégé des Sciences Médicales*, 15 vols. 8vo.; numerous articles in the *Biographie Médicale*, the *Encyclopédie Moderne*, the *Journal Hebdomadaire*, &c. He edited and annotated the following works: The works of Pujol; Dr. Thomson's Treatise on Inflammation; Rolando's Physiological Inductions; Tissot's Treatise on the Health of Literary Persons. He was for twelve years principal editor of the *Journal Universel des Sciences Médicales*.

Like so many members of our profession, who devote themselves to the literary and scientific part of medicine, Dr. Boisseau too much neglected the advancement of his private fortune. He has consequently died very poor, leaving a widow and three children unprovided for, and for whom a subscription is now opened among the members of the profession in Paris.

BOOKS RECEIVED FOR REVIEW.

ENGLISH.

1. Thoughts on Physical Education, and the true Mode of improving the Condition of Man; and on the Study of the Greek and Latin Languages. By Charles Caldwell, M.D., Professor of the Institutes of Medicine, &c. in Transylvania University. With Notes by Robert Cox, and a commendatory Preface by Geo. Combe.—Edinburgh, 1836. 12mo. pp. 198. 3s. 6d.

2. Principles of Pathology and Practice of Physic. By John Mackintosh, M.D., Lecturer on the Practice of Physic in Edinburgh, &c. Fourth Edition.—London and Edinburgh, 1836. Two vols. 8vo. £1 11s. 6d.

3. Observations on the Influence of Religion upon the Health and Physical Welfare of Mankind. By Amariah Brigham, M.D.—Boston, 1835. 8vo. pp. 301.

4. Remarks on the Influence of Mental Cultivation and Mental Excitement upon Health. By Amariah Brigham, M.D. Second Edition.—Boston, 1833. 8vo. pp. 130.

5. A Popular Manual of the Art of Preserving Health, embracing the Subjects of Diet, Air, Exercise, Gymnastics, general and physical Education, &c. &c. Designed for the use of all Ranks and Professions in Society. By J. B. Davis, Surgeon.—London, 1835. 8vo. 10s.

6. Tenth Report of the Connecticut Retreat for the Insane.—Hartford (U.S.), 1834. 8vo. pp. 21.

7. Facts and Cases in Obstetric Medicine, with Observations on some of the most important Diseases incidental to Females. By J. T. Ingleby, Surgeon to the Magdalen Asylum, and Lecturer on Midwifery at the Royal School of Medicine, Birmingham.—London, (no date.) 8vo. pp. 296. 9s.

8. The Transylvania Journal of Medicine and the associate Sciences. Edited by L. P. Yandell, M.D., Professor of Chemistry and Pharmacy in Transylvania University. For January, February, and March, 1836.—Lexington. 8vo. pp. 200.

9. The Western Journal of the Medical and Physical Sciences. Edited by D. Drake, M.D., Professor of Medicine in Cincinnati College, and W. Wood, M.D. April, 1836.—Cincinnati. 8vo.

10. A Treatise on Tetanus; being the Essay for which the Jacksonian Prize for the year 1834 was awarded by the Royal College of Surgeons in London. By T. B. Curling, Assistant Surgeon to the London Hospital.—London, 1836. 8vo. pp. 236. 8s.

11. The Clinique Médicale; or, Reports of Medical Cases. By G. Andral, &c. &c. Translated by D. Spillan, M.D. Part V.—London, 1836. 8vo. 5s.

12. *Practical Observations on Strangulated Hernia, and some of the Diseases of the Urinary Organs.* By Joseph Parrish, M.D.—Philadelphia, 1836. 8vo. pp. 330; with three Plates.

13. *An Account of the most frequented Watering Places on the Continent, and on the Medicinal Application of their Mineral Springs; with Tables of Analysis, and an Appendix on English Mineral Waters.* By Edwin Lee, Esq. M.R.C.S.—London, 1836. 8vo. pp. 232.

14. *A Medical Vocabulary; or Explanation of all Names, Synonymes, Terms, and Phrases used in Medicine, Surgery, and the relative Branches of Medical Science; giving the correct Derivation, and Directions for the proper Pronunciation of each.* By a Medical Practitioner.—Edinburgh, 1836. 12mo. pp. 185. 4s. 6d.

15. *The Human Brain, its Configuration, Structure, Development, and Physiology: illustrated by References to the Nervous System in the lower Orders of Animals.* By Samuel Solly, Lecturer on Anatomy and Physiology in St. Thomas's Hospital.—London, 1836. 8vo. pp. 492; with 12 Plates. 12s. 6d.

16. *Guy's Hospital Reports, No. III.* September, 1836. Edited by G. H. Barlow, M.A., and J. P. Babington, M.A.—8vo., with numerous Plates. 4s.

17. *On the Disease of the Hip-Joint.* By William Coulson, Consulting Surgeon to the London Lying-in Hospital, &c. &c.—London, 1837. 4to. pp. 111; with plain and coloured Plates. 10s. 6d.

18. *A Bedside Manual of Physical Diagnosis, applied to Diseases of the Lungs, Pleura, Heart, Vessels, Abdominal Viscera, and Uterus.* By Charles Cowan, M.D. P. & E. &c.—London, 1836. 18mo. pp. 58. 2s. 6d.

19. *A Practical Demonstration of the Human Skeleton.* By George Elkington, M.R.C.S., Demonstrator of Anatomy in the Royal School of Medicine and Surgery, Birmingham.—London and Birmingham, 1836. 12mo. pp. 240. 7s.

20. *An Essay on the Origin and Nature of Tuberculous and Cancerous Diseases.* Read to the Medical Section of the British Association, on the 23d August, 1836. By Richard Carmichael, M.R.I.A., Consulting Surgeon of the Richmond Surgical Hospital, &c.—Dublin, 1836. 8vo. pp. 56.

21. *Medical Study: an Introductory Address, delivered at the Bristol Medical School, October 1, 1836, at the Opening of the Winter Session.* By J. A. Symonds, M.D., Physician to the Bristol General Hospital, and Lecturer on the Theory and Practice of Medicine.—Bristol, 1836. 8vo. pp. 34. 1s.

22. *A Theoretical and Practical Treatise upon the Ligature of Arteries.* Translated

from the French of P. J. Manec, M.D. &c., by J. W. Garlick, M.R.C.S., and W. C. Copperthwaite, M.R.C.S. With Notes and Appendices.—Halifax, 1832. 4to. pp. 227; with coloured Plates.

23. *Selections from the Phrenological Journal: comprising forty Articles in the first five Volumes, chiefly by George Combe, James Simpson, and Dr. Andrew Combe.* Edited by Robert Cox.—Edinburgh, 1836. 8vo. pp. 360. 5s. 6d.

24. *The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery and on the Diseases of Women and Children.* Illustrated by numerous Plates. By D. D. Davis, M.D. M.R.S.L., Professor of Midwifery in the University of London, &c.—London, 1836. Two vols. 4to. pp. 1294. £4 4s.

25. *Animal Magnetism and Homœopathy; being the Appendix to Observations on the Medical Institutions, &c. of France, Italy, and Germany.* By E. Lee, M.R.C.S.—London, 1835. 8vo. pp. 40. 2s.

26. *Outlines of a Course of Lectures on Medical Jurisprudence.* By T. S. Traill, M.D., Professor of Medical Jurisprudence in the University of Edinburgh, &c. &c.—Edinburgh, 1836. Small 8vo. pp. 94. 2s. 6d.

27. *The British Medical Almanack for 1837.* Edited by William Farr. To be continued annually.—London, 1837. Small 8vo. pp. 214. 3s.

28. *Medical Report of the Managers of the Lunatic Asylum of Aberdeen.* Read at the General Meeting, 9th June, 1836.—Aberdeen, 1836. pp. 12.

29. *The Fallacy of the Art of Physic as taught in the Schools; with the Development of new and important Principles of Practice.* By Samuel Dickson, M.D., Cheltenham, formerly a Medical Officer on the Staff.—Edinb. 1836. 8vo. pp. 180. 7s.

30. *Homœopathy examined; or, Homœopathy in Theory, Allopathy in Practice.* By R. Verity, M.D.—Paris, 1836. 8vo. pp. 24.

31. *Essay on the Mineral Waters of Carlsbad, for Physicians and Patients.* By Chevalier John De Carro, M.D. of the Faculties of Edinburgh, Vienna, and Prague, &c.—Prague, 1835. 12mo. pp. 136.

32. *Lectures on the Morbid Anatomy of the Serous and Mucous Membranes.* In two Volumes. Vol. I. of the Serous Membranes; and, as appended Subjects, Parasitical Animals, Malignant adventitious Structures, and the Indications afforded by Colour. By Thomas Hodgkin, M.D., Demonstrator of Morbid Anatomy, and Curator of the Museum at Guy's Hospital, &c. &c.—London, 1836. 8vo. pp. 402. 10s. 6d.

33. *Elements of the Practice of Physic; presenting a View of the present State of Special Pathology and Therapeutics.* By

David Craigie, M.D. F.R.S.E., Physician to the Royal Infirmary, Edinburgh, &c. &c. Vol. I.—Edinburgh, 1836. 8vo. pp. 952. 18s.

34. A Practical Treatise on the Management and Diseases of Children. By R. T. Evanson, M.D., Professor of Medicine, and H. Maunsell, M.D., Professor of Midwifery in the Royal College of Surgeons in Ireland.—Dublin, 1836. 8vo. pp. 527. 7s. 6d.

35. The Retrospective Address upon Medical Science and Literature, delivered at the Fourth Anniversary Meeting of the Provincial Medical and Surgical Association, held at Manchester, July 21st, 1836. By John Green Crosse, Esq. F.R.S., Surgeon to the Norfolk and Norwich Hospital. From the Transactions of the Provincial Medical and Surgical Association.—8vo. pp. 88. Worcester, 1836.

36. Catalogue Raisonné; or, classified Arrangement of the Books in the Library of the Medical Society of Edinburgh, instituted 1737.—Edinburgh, 1837. 8vo. pp. 342.

37. The Principles of Surgery. By James Syme, F.R.S.E., Professor of Clinical Surgery in the University of Edinburgh.—8vo. pp. 460. Edinburgh, 1837.

38. Elements of Medicine. Vol. I. On Morbid Poisons. By Robert Williams, M.D. Senior Physician of St. Thomas's Hospital.—London, 1836. 8vo. pp. 342. 10s. 6d.

39. A new and familiar Treatise on the Structure of the Ear and on Deafness. By A. W. Webster.—London, 1836. 8vo. pp. 151. 5s.

40. Micrographia: containing Practical Essays on Reflecting, Solar, Oxyhydrogen Gas Microscopes, &c. By C. R. Goring, M.D., and A. Pritchard, Esq.—London, 1837. 8vo. pp. 231. 8s. 6d.

41. Experimental Researches into the Physiology of the Human Voice. By John Bishop, M.R.C.S. &c.—London, 1836. pp. 24; plates. 2s.

42. A Description of the Bones; together with their several connexions with each other, and with the muscles, specially adapted for Students in Anatomy. By J. F. South, Assistant Surgeon to St. Thomas's Hospital.—Third Edition, with 250 Engravings by Branston. 7s.

FOREIGN.

1. Der torpide Croup, die gefahrvollste Art der häutigen Bräune. Ein Beitrag zur nähern Erforschung der natur des Croups, zur Diagnostik und glücklichen heilmethode der verschiedenen arten und zu einer neuen theorie desselben. Von Philipp von Hagen, M.D., mit zusätzen, &c. über das wesen des Torpors, &c. Von L. A. Kraus, Dr. Phil. et M. leg., &c.—Göttingen, 1835. 8vo. pp. 220.

2. Lehrbuch der Geburtshülfe für He-

bammen. Von F. K. Nägele, M.D., Professor der Medizin und Geburtshülfe zu Heidelberg, &c. Dritte Auflage.—8vo. pp. 406. Heidelberg, 1836.

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4. Hygiène Publique; ou Memoires sur les Questions les plus importantes de l'Hygiène appliquée aux professions et aux travaux d'Utilité publique. Par A. J. B. Parent-Duchatelet, Médecin de l'Hôpital de la Pitié, &c.—Paris, 1836. Two vols. 8vo. pp. 552, 708.

5. De la Prostitution dans la Ville de Paris, considérée sous la Rapport de l'Hygiène publique, de la Morale et de l'Administration. Par A. J. B. Parent-Duchatelet, M.D. &c.—Paris, 1836. Two vols. 8vo.

6. Denkwürdigkeiten in der ärztlichen praxis. Von Dr. J. H. Kopp, Kurfürstlich geheimen Ober-medicalrathe, &c. &c. zu Hanau. Dritter Band.—Frankfurt, A.M. 1836. 8vo. pp. 407.

7. Specimen Historico-Medicum, de Cholera Asiaticæ itinere per Belgium Septentrionale. Auctore A. C. G. Suerman, M.D.—Trajecti ad Rhenum, 1835. 8vo. pp. 289.

8. Rede zur Feier des zwei und vierzigsten Stiftungstags des Königlichen Medicinisch-chirurgischen Friedrich-Wilhelms-Instituts, am 2ten August, 1836, gehalten von Dr. Johannes Müller, Professor der Anatomie und Physiologie.—Berlin. 8vo. pp. 27.

9. Ueber die Endungsweise der Nerven in den Muskeln, nach einigen untersuchungen. Von Dr. Fr. Carl Emmert, privatdocenten an der Hochschule in Bern.—Bern, 1836. 4to. pp. 35; mit 2 Abbildungen.

10. Beschreibung der St. Petersburgischen Anstalt zur bereitung künstlicher mineralwässer sowohl zum trinken als zum baden. Von Dr. M. A. Meyer. 8vo. pp. 64. St. Petersburg, 1834.—Bericht ueber die Wirksamkeit der St. Petersburgischen Anstalt, &c. im Jahre, 1836. 8vo. pp. 12. St. Petersburg, 1836.

11. Effet des Eaux de Carlsbad sur les derniers Fragmens d'un Calcul restés dans la Vessie, après la Lithotripsie. Lettre du Docteur Bigel au Chevalier De Carro.—Prague, 1836. 8vo. pp. 24.

12. Il Filiale-Sebezio Giornale delle Scienze Mediche. Diretto dal Prof. S. M. Ronchi, Compilato da Salvatore de Renzi. Anno VI. Vol. XI.—Napoli, 1836.

13. Bulletino delle Scienze Mediche. Serie 2a. Vol. II.—Bologna, 1836.

14. Texture et Developpement des Poux-mons. These Soutenue 24 Juin, 1836. Par M. A. Berard, Chirurgien de l'Hôpital Necker.—Paris, 1836. 8vo. pp. 132.

THE
BRITISH AND FOREIGN
MEDICAL REVIEW,

FOR APRIL, 1837.

PART FIRST.

Analytical and Critical Reviews.

ART. I.

1. *A Further Inquiry concerning Constitutional Irritation, &c.* By BENJAMIN TRAVERS, F.R.S.
2. *Outlines of Human Pathology.* By HERBERT MAYO, F.R.S.
3. *An Essay on Laryngismus Stridulus.* By HUGH LEY, M.D.
4. *Researches on the Diseases of the Brain.* By JOHN ABERCROMBIE, M.D.
5. *Lectures on the Nervous System.* By MARSHALL HALL, M.D.
6. *Papers on Diseases of the Brain, (Med.-Chir. Transactions, vol. xix.)* By J. SIMS, M.D.
6. *Isis Revelata.* By J. C. COLQUHOUN, ESQ.

In passing in review, in our last Number, the contents of the very valuable works of which the titles are prefixed, we considered at some length several of the most important points relating to the actual state of our knowledge of the physiology and pathology of the nervous system. After having discussed the fundamental physiological question as to the extent in which the nervous system is concerned in maintaining the organic life of animals, we endeavoured to make the reader acquainted with the present state of our knowledge of the pathology, firstly, of the nerves, and, secondly, of the spinal marrow and medulla oblongata. We shall now conclude the subject by endeavouring to ascertain the state of our knowledge as to the pathology of the brain itself, or those parts of the nervous system superior to the medulla oblongata.

When we attempt a survey of the state of our knowledge in regard to the Pathology of the Brain, we meet with a striking example of the difficulty which, in the present stage of medical science, attends every attempt to accommodate our pathological knowledge to nosological distinctions, and therefore to apply it in practice with confidence and precision. If we attempt to arrange cases of disease within the cranium according to their most prominent or urgent symptoms, we shall put together many which proceed not only from various external causes, but from various kinds of diseased action; and therefore, if fatal, present very various appearances on dissection. If, on the other hand, we give names to

diseases only according to the morbid appearances which they leave behind them, the insurmountable practical objection immediately presents itself, that we shall have no names for many diseases, during the earlier and more important periods of their progress, and frequently none even until the anatomist's art shall have come to the assistance of the physician's diagnosis.

For example, how various are the causes from which headach, or coma, or convulsion, or delirium, or even palsy, or any combination of two or more of these symptoms may proceed; and, on the other hand, how various the series of symptoms which may attend either simple inflammation of the brain or its membranes, or the effusion of serum, or the rupture of a blood-vessel, or the growth of tubercles or of other tumours, or the chronic hardening or softening of portions of the brain!

Mr. Mayo is so well aware of this difficulty that, after describing the different "structural lesions" to which the different textures within the cranium are liable, he adds,

"The disorders of the cerebral functions are so far from having an exact relation to them, that, to convey a true idea of their character, it is necessary to give up the attempt to arrange them on anatomical principles, and to be satisfied with grouping them into natural families upon resemblance of symptoms alone; examining afterwards with how various conditions of the brain each disease may be associated." (*Outlines*, p. 182.)

This is an acknowledgment of the essential distinction between morbid anatomy and pathology, on which young practitioners will do well to reflect. It is not a short process of reasoning only, but a whole science that intervenes between the observation of morbid lesions, and the application of the knowledge thus acquired to the treatment of disease; and one of the most important subjects for investigation which this science comprehends, is the question, how similar lesions should be found in connexion with very various symptoms, and very various lesions with symptoms remarkably similar. In enquiries regarding diseases within the cranium, this question presents itself continually, and has invested the subject with a peculiar perplexity.

But we cannot exactly agree with Mr. Mayo as to the mode of arrangement of diseases of the brain, by which our pathological knowledge can be best brought to bear upon practice. In this, as in other cases, we think it plain that the notions attached to *genera* of disease must be made more comprehensive than has usually been the practice of physicians, and may thus be safely and advantageously connected with their pathology, as already ascertained; and that many of the terms which were formerly held to denote different diseases should be retained as the names of symptoms, or sets of symptoms, or diseased states, which may occur in the course of different diseases.

The general character of diseases should, we think, always be founded on the leading, and essential, and recognized distinctions of their pathology, (using that term in its most extensive sense,) and therefore should always be drawn up with special reference to their morbid anatomy. It is only by building on this foundation that we can be certain of forming a fixed and durable system of nosology, grounded, not on any arbitrary arrangements or accidental combinations of symptoms, but on the essential nature of the changes which constitute diseases. But, then, we must

remember that each disease consists of a long series of changes, involving various functions of the body, and showing themselves by symptoms which vary in the progress of the case, and are modified by the circumstances of the patient; and that it is no reflection either on the character of the observer, or on the method which he follows, that he should often be unable, from seeing certain only of the changes that are going on, and these only during a portion,—often a very variable portion of their progress,—to give truly scientific names to many of the cases which he sees. We must remember, therefore, that certain symptoms, and sets of symptoms, are often invested with a practical importance hardly inferior to genera of disease, demanding and justifying the use of remedies, in many cases where it is still uncertain of what disease they form a part; although, in all cases, it is of the utmost importance to obtain this knowledge as soon as possible, in order to understand the danger that is impending, and to acquire confidence in the remedies that are truly indicated. Thus, headach, coma, convulsions, delirium, palsy, are not, properly speaking, diseases; but occurrences which may take place in the course of various diseases of the nervous system; their proper treatment must depend very much on the nature of the diseased action of which they form a part, and must therefore be very various in different cases; yet these symptoms are in many cases of themselves sufficient to justify important modes of practice, while the nature of the changes producing them is still obscure.

We must also remember that the distinctions of diseases (and particularly of those which are unconnected with the application of morbid poisons,) cannot be drawn with the same precision as those of animals or plants, or crystallized minerals, because in many cases two different diseases either graduate insensibly into one another, or give occasion to one another, and so constitute an unbroken succession of changes. Thus, we can have no doubt that many organic diseases of the brain are in reality effects of inflammation occurring there, especially if happening in unhealthy constitutions.

Entertaining these general views as to the arrangement of diseases, we cannot approve of the merely arbitrary arrangement of Mr. Mayo:—“Apoplexy, palsy, epilepsy, derangement, inflammatory disease, concussion, compression from injuries.” In order to take a systematic view of the subject, the proper course, we apprehend, is this: first to study the various primary effects of external injury, whether concussion (previous to the accession of inflammation,) or compression from depressed bone or effused blood; and then the effects on the functions of the nervous system, of other external causes operating suddenly and violently, cold, heat, electricity, hemorrhage, and especially narcotic poisons. The works of Pott, Abernethy, Brodie, Travers, Kellie, Christison, and others, have illustrated this part of the subject nearly as completely as can be desired. Having thus acquired precise information as to the direct effects of these powerful external agents on the nervous system, we would next take Dr. Abercrombie as our guide in bringing into order the facts that are known as to its diseased states resulting from internal changes; and, so far as he goes, his arrangement appears excellent; but there are two important classes of nervous disease, which he has either omitted or only incidentally noticed, and of which we shall say a few words in the sequel.

Dr. Abercrombie's general division is into Inflammatory Affections of

the Brain, Apoplectic Affections, and Organic Diseases of the Brain. By the term apoplectic affections, he understands all those serious diseases of this organ which take place *suddenly*, whether the affection be of the nature of coma or only palsy. It is obvious that these great genera of disease graduate insensibly, in some instances, into one another; yet the generic distinctions are both borne out by morbid anatomy, and generally applicable, and important to be applied in practice; they are simple, comprehensive, and important. We shall adopt his distinctions, although altering the arrangement of his classes.

I. Dr. Abercrombie has, we think, the merit of having observed, analysed, and arranged the very various symptoms of inflammatory disease within the head, more successfully than any preceding author. In so doing, we need hardly say that he has described and methodized the chief symptoms of the earlier stages of Hydrocephalus; that being the name given by the older authors to the only inflammatory disease of the brain and its membranes, which is of real and frequent occurrence, most commonly in children, but occasionally also in adults. That a very large proportion of strictly inflammatory cases where the brain is concerned should not, until lately, have been generally recognized as such, is sufficiently explained by the observation that, "from the rapid effects which all acute diseases of the brain produce on the sensorial functions, the patient generally becomes, at an early period, unable to express his feelings, and the proper symptoms of the disease are lost amid that suspension of all the faculties, to which we give the name of oppression of the brain:" i. e. the stupor, consequent even on the first stage of the inflammation, masks the symptoms which would otherwise have been recognized as strictly inflammatory.

It is true that, in many cases of fatal hydrocephalus, we find on dissection the effusion of serum only, without any decidedly inflammatory appearance; but, in many, such appearances on the membranes of the brain, (especially at its base,) or in its substance, are quite unequivocal: the symptoms in those which give this distinct evidence of their inflammatory nature are not to be distinguished from those of the cases where the effusion of serum only appears on dissection, and the experience of the *juvantia* and *lædientia*, in all the varieties of the disease in question, when it can be recognized in its early stage, abundantly confirms the conclusion of their inflammatory nature. The strictly and unequivocally inflammatory appearances often found in the brain and its membranes, in connexion with and sometimes without serous effusion, are reddening and hardening of portions of the cerebral matters, softening with discoloration of the same; effusion of false membranes, most generally seen between the pia mater and arachnoid; suppuration, circumscribed or diffused; and in a few rare cases ulceration, besides more chronic sequelæ, which will more properly be mentioned as organic lesions.

The very various symptoms observed in different cases in the commencement of a disease, which goes on, within a few weeks, to coma, convulsion, and the other concomitants of the last stage of hydrocephalus, and shews on dissection serous effusion in the ventricles, with or without these marks of inflammation, are arranged by Dr. Abercrombie as follows,—with the preliminary admission, in which we fully concur, that, for practical purposes, we cannot, as yet, depend on any distinctions of inflammation

of the substance of the brain from inflammation of its membranes, and must be contented with a general "view of the symptoms which indicate inflammation of any of the parts within the cranium."

1. One set of cases are described as beginning with the phrenitis of systematic writers; "Fever, pervigilium, acute headach, impatience of light, suffusion of the eyes, and maniacal delirium." This combination of symptoms occurs symptomatically in a few cases of fevers and of mania; rarely idiopathically, excepting now and then from the abuse of strong liquors, and in hot climates from exposure to the intense heat of the sun. Sometimes also similar symptoms are seen from injuries of the head. There is reason to think that the inflammation in such cases is chiefly in the membranes and external surface of the hemispheres. When such cases are fatal, it is generally by rapid sinking of the vital powers; and the appearances on dissection are often slight.

On this form of the disease we would observe, that the cases of this description produced by insolation and by drinking, and we believe also some of those from concussion, are probably not strictly inflammatory; although they are cases in which a determination to the brain, chiefly affecting its external surface, and some serous effusion there may take place. Some such cases bear bleeding well, but in many the pulse soon becomes feeble, and full bleeding is certainly dangerous: and Dr. Abercrombie describes a set of cases which he has repeatedly seen, unconnected with the use of strong liquor, but in which the symptoms are just such as we see in many cases of delirium tremens; and the appearances on dissection, if they are fatal, and some of the remedies found useful, very similar to what is there seen;—cases of "remarkable restlessness, quickness and impatience of manner, obstinate watchfulness, and incessant rapid talking, the patient rambling from one subject to another with little connexion, but often without actual hallucination." (P. 6.) Such cases, he observes, are generally fatal, by sudden "sinking of the vital powers supervening on the high excitement, without coma," (p. 61;) just as happens in delirium tremens, the fatal event of which is very generally strictly in the way of syncope, not of coma. Such cases, when fatal, show very little morbid appearances; only "a very vascular state of the pia mater, with sometimes very slight effusion between it and the arachnoid;" appearances by no means unequivocal. "The disease is one of extreme danger, but does not in general admit of very active treatment. General bleeding is not well borne, and the treatment must in general be confined to topical bleeding, antimonials, purgatives, and the powerful application of cold to the head. This affection is most common in females of a delicate irritable habit." In his third edition, Dr. Abercrombie describes one case of this kind, and mentions having seen several others in which, "when the pulse became rapid and feeble, and the countenance expressive of exhaustion," stimulants in pretty full quantity, (e. g. a glass of wine every hour till the fourth time,) were decidedly beneficial. In this also there is the obvious analogy to the now established practice in delirium tremens; and, from what we have often seen of the effect of opium in similar circumstances in cases of that kind, we should judge it to be applicable here also, although not mentioned by our author.

We do not deny, that some of the fatal cases of this description may be cases of inflammation of the pia mater, fatal in its earliest stage.

before the characteristic inflammatory exudations have appeared; but we know from experience that forty-eight hours or less of active inflammation of that membrane, on the external surface of the brain, are sufficient to produce a pretty thick sheet of lymph; and it may at least be inferred that the cases of real inflammation of the brain, where the symptoms correspond to the phrenitis of the older authors, are very rare.

2. Dr. Abercrombie describes a set of truly inflammatory cases, of great importance in practice, where "the first symptom that excites alarm," sometimes positively the first observed, "is a sudden attack of *convulsion*, generally long and severe," sometimes passing directly into fatal coma, in other cases returning repeatedly, with intervals of restoration of the senses. The pulse is very variable, and febrile symptoms occur. In some such cases, it appears distinctly from his researches, there has been inflammation of the substance of the brain, in others, of the membranes only; in some, fatal in its first stage; in others, not until much softening of the brain, or purulent effusion on its surface, had taken place. This appears evidently to be one of the most dangerous forms of the disease; but two unequivocal cases are given, (70 and 71,) in which full and early bleeding and purging were completely successful. There are cases, also, in which the first inflammatory symptoms are so slight as hardly to attract attention, and are observed by the early accession of coma, more or less profound, but with little or no convulsion. A striking example is given by Dr. McLagan, of Edinburgh, in the *Edinburgh Journal* for October, 1835.

3. The next form of the disease described is one more frequently seen, and, under early and active treatment, we believe, much more easily controlled. In this there are the usual febrile symptoms, sometimes ushered in by some shivering.

"The patient is oppressed and unwilling to be disturbed, and complains of *acute* pain in some part of the head, with flushing of the face and impatience of light. In many cases there is frequent vomiting for the first day or two; in others, this is absent. The pain is felt in various parts of the head, frequently extends along the neck, and sometimes to other parts of the body. The pupil is usually contracted, the eye morbidly sensible, sometimes suffused; the tongue generally white, but moist, sometimes quite clean. The sleep is disturbed by starting and frightful dreams, frequently with violent grinding of the teeth. The bowels are generally obstinate, but sometimes natural, and I have seen the disease attended throughout its whole course by a spontaneous diarrhœa. After some days, slight delirium begins to appear, &c., or, instead of delirium, a peculiar forgetfulness; the patient using one word instead of another, misnaming persons and things, &c. These symptoms are followed by a tendency to sleep, and this soon passes into coma. While these symptoms are going on, the pulse, which was at first frequent, usually falls to the natural standard, or below it."

It is unnecessary to proceed with this description; but, as every thing depends on recognizing this form of the inflammation of the brain, (somewhat chronic, but the most frequent form,) in its earliest stage, we shall hazard a little criticism on this epitome of the symptoms. We do not think the term *oppression* so applicable to the first stage of this disease as of continued fever. There is generally a peculiar aversion to motion, and especially to the erect position, which causes nausea and increases the pain; and often there is the impatience both of light and sound; but there is less general torpor of the sensorial functions than in

the beginning of fever. We should say also, that the vomiting of almost all ingesta is more general and characteristic than our author's statement would imply; and that the pain of head, besides being more acute, is often marked by occasional twinges, or *stounds*, of peculiar intensity, causing the patient to scream out occasionally in a manner obviously different from the prolonged, drawling moan of typhus. The flushing of the face is often absent. The pulse has also in general, we think, a peculiar sharpness before it is reduced in frequency; and it is very important to observe that blood drawn from the arm is very often both sizzly and contracted, and easily distinguished from the blood of incipient fevers, the crassamentum of which is comparatively flabby. We insist on these marks, because a good deal of experience has convinced us that, if this combination of symptoms is seen within the first two days, and met by full and repeated bloodletting (from the arm, if the patient is above three years of age,) and free purging, the greater number of such cases will do well, and the convalescence be so rapid and complete, as to indicate unequivocally that an inflammatory disease had been cut short. In general, the more violent the pain, and the more distinctly this combination of symptoms is observed, the more quickly and surely will the early depletions succeed.

4. In the next form of the disease, the symptoms advance more slowly and are more insidious, and more like continued fever; the head-ach slight, or soon abating; with impaired appetite, disturbed sleep, general uneasiness, pulse under one hundred. "Amid remissions and aggravations, eight or ten days may pass before the disease assumes a decided character." An attentive observer may remark that the head-ach, though not severe, is more constant than in other febrile diseases, and continues, *with a peculiar unwillingness to be disturbed*, when the tongue is cleaning, the pulse coming down, and the appetite returning. "It may not be till the twelfth or fourteenth day that the pulse suddenly falls to the natural standard, or below it, while the headach is increased, with tendency to stupor; and then the usual symptoms of the later stages follow. This form," as Dr. Abercrombie justly observes, "is worthy of a separate description, on account of its insidious character in the early stages, and its frequent occurrence. Cases occur in which there is still less appearance of affection of the head, or even not the slightest complaint of headach throughout the whole disease." The more obscure and insidious the symptoms, in general is the disease more intractable.

5. The last form of the disease described by our author, and chiefly seen in adults, is where there is at first violent headach without fever, the pulse at or below the natural standard from the first; but the pain acute and shooting through the head, with unwillingness to be disturbed, often vomiting, and then early delirium.

We may quote here, before entering on some pathological questions connected with inflammation within the cranium, Dr. Abercrombie's general and most judicious observation on the treatment, that

"The remedies are few and simple, but every thing depends on the use of these being adopted at an early period, and in the most decided manner. Those on which we chiefly rely are bloodletting (general and topical), active purgatives, and cold applications to the head. Benefit is also derived from antimonials, and, in some states of the disease, from digitalis. The effect of blistering in the early

stages is ambiguous." . . . "In those cases which assume the more acute or active forms, general bloodletting must be used in the most decided manner; while, in the cases which assume the more chronic character, as in many of the common cases of hydrocephalus, it has less control over the disease, and is not borne to the same extent."

We must allow that this last observation is true, yet we think there is much practical risk that it may be allowed to bias the minds of young practitioners too much. In many cases we believe that bloodletting is ineffectual, only because the disease is not recognized, at least with such confidence as to ensure its energetic employment in the early stage. When the disease is well marked, even although its progress may have been rather slow, we have so often seen that a certain degree of effect is produced on it by bloodletting, and have witnessed so often the utter inefficacy of all other remedies without it, that we can never think ourselves justified in declining to urge it as far as can be safely done.

Dr. Abercrombie's observations on the importance of active purging is, we think, expressed in too unqualified a form.

"This," he says, "is the remedy from which, in all forms of the disease, we find the most satisfactory results; and, although bloodletting is never to be neglected in the earlier stages, my own experience is that more recoveries take place from head affections of the most alarming aspect, under the use of very strong purging, than under any other mode of treatment. In most of these cases, indeed, full and repeated bleeding had been previously employed, but without any apparent effect in arresting the symptoms. The most convenient medicine for the purpose is the croton oil."

Now, although we believe it to be generally true that more recoveries from *bad symptoms* of affection of the brain take place under the use of purgatives than of bloodletting, yet we are confident that a greater number of recoveries from inflammation of the brain take place within a very short time after, and in consequence of, bloodletting; but then these are cases treated in the early stage, *before the symptoms have become bad*. The time when bloodletting can be expected to be decidedly useful is generally at an end when coma has supervened: a few cases recover, chiefly under blistering and purging, and probably under the use of mercury, at a more advanced period; but the proportion of these to the deaths is small, in comparison with the proportion of recoveries from the early stage, where the most powerful remedy used was full bloodletting: and, although there are cases in which no good effect appears at the time from bloodletting, and the symptoms abate afterwards under purgatives, it can hardly be doubted that the former remedy had most materially aided the effect of the latter. It is certain that, when blood is freely drawn in the beginning of the disease, the subsequent effect of purgatives is manifestly increased; so that in such cases the peculiar torpor of the bowels, regarded by some as characteristic of hydrocephalus, is rarely to be seen.

On the use of mercury Dr. Abercrombie gives an opinion which many of our brethren in this part of the island may regard as heterodox, but which agrees perfectly well with our own observations,—viz. "that it is useful chiefly as a purgative;" and that, if used in the early and more distinctly inflammatory stage, so as to affect the mouth, it may be injurious. Formerly it was given "to promote the absorption of the effused fluid, then supposed to be the essence of the disease; it is now given to

correct the biliary secretion and the functions of the digestive organs, which, according to certain modern doctrines, hold so prominent a place in almost every class of diseases. In affections of the brain, as in other diseases, it is highly proper that these secretions should be attended to, but it is not thus that we are to expect to cure hydrocephalus." In another place he justly observes, that "every practitioner who divests himself of system, and attends to what is passing before him, will find that hydrocephalus runs its course with every possible variety in the appearance of the evacuations, and that, even at the most advanced periods of the disease, they may often be found to be perfectly natural." To this we may add that, although many practitioners, both in England and on the continent, believe in a peculiar efficacy of mercury in checking inflammations in various membranes; yet, if they were always careful to distinguish what is due to mercury as a purgative, from what is due to it as a specific affecting the mouth,—and what is truly its effect, from what is the effect of other remedies used at the same time,—we strongly suspect they would find their belief to have little foundation in personal observation. If there be any virtue in the specific agency of mercury, we should say, from any thing we have seen, that it is in the late stage of the disease, when effusion may be suspected, and when the comatose tendency is strong. In a few such cases, of slower progress than usual, we believe it is really efficacious.

Dr. Abercrombie's enumeration of the *causes* of inflammation within the brain is, we think, somewhat defective. He mentions particularly its frequent occurrence in *the course* of other febrile diseases,—as continued fever, scarlatina, measles, &c.: we think he should rather have said, immediately after the decline of these diseases; and then he might have added, that, in the same circumstances, other inflammations (e. g. of the pleura and of the kidneys,) are easily produced—all of them, we believe, most generally by slight exposure to cold—and are insidious and dangerous. He mentions particularly the case, by no means uncommon, of children, convalescent from scarlatina, "seized, perhaps after some exposure to cold, with headach, which after a short time is followed by convulsion, and then by blindness and coma." These symptoms, he says, "are apt to be ascribed to sudden effusion in the brain, but the disease is entirely inflammatory, and the patient can only be saved by the most vigorous treatment, by bloodletting, purgatives, and other similar remedies. Upon this plan many such cases recover." To this we have only to add, that in many such cases it will be found, on examination, that the urine is of low specific gravity and coagulable, indicating an inflammatory disposition in the kidneys, and, although not modifying the practice, assisting to explain the rapid accession of coma.

He mentions particularly, as causes of this inflammation, injuries of the head, even although apparently slight; suppressed evacuations, particularly of the menses; he gives cases illustrating its "frequent extension from disease of the ear, and connexion with previous diseases of a chronic or scrofulous character in other parts;" he barely notices "passions of the mind, stimulating liquors," &c. as its exciting causes, and more particularly insists on "exposure to the intense heat of the sun." We have seen several cases of children in which a sudden fright has acted most distinctly as the exciting cause of the disease; but we have our

doubts as to the strictly inflammatory nature of the affection of the brain, produced either by drinking or by insolation exclusively. In the case which he gives in illustration of the last, of a young man who had bathed *twice* in the river Tweed in a hot day, and, "on coming out the second time, lay down on the bank, and fell asleep without his hat, exposed to the sun," awakened speechless, and in whom inflammation and suppuration were found ultimately to have taken place in the brain; it is obvious that the effect of the heat on the circulation in the head, in accordance with the luminous views of Dr. Currie on cold as a cause of disease, would be aided by chilling and depressed circulation in other parts of the surface, and particularly in the extremities. And we think it should be more distinctly stated, that exposure to cold is a very frequent exciting cause of this, as well as of other internal inflammations; in proof of which we may state that we have observed, on examining the records of a numerously attended dispensary, that the numbers of cases of hydrocephalus increased in the cold seasons of the year, fully as distinctly as those of inflammations within the chest.

Reverting to the pathology of cases of this description, we have to notice three questions, to which Dr. Abercrombie and Dr. Sims have particularly addressed themselves:—1. The nature of the connexion of the latter symptoms of the disease and death of the patient with the serous effusion in the brain, hardly requires so much attention now as at the time when Dr. Abercrombie first wrote on the subject. It is now generally known, to use his own words, "that there are many facts on record showing the presence of fluid in the brain in large quantity, without any alarming symptom having resulted from it; that it is not the mere presence of a certain quantity of fluid in the brain that gives rise to the symptoms of hydrocephalus, and that a disease may go through all the usual symptoms of hydrocephalus, and terminate fatally, without any effusion; that the prominent symptoms, therefore, are not the result of the effusion, but of that disease of the brain of which effusion is one of the terminations, and that this disease is of an inflammatory nature." Yet this last observation, we think, requires some limitation, and particularly when it is afterwards stated that "slowness of pulse, followed by frequency, squinting, double vision, dilated pupils, paralytic symptoms, and perfect coma, may exist in connexion with a state of the brain which is active or simply inflammatory;" although we may admit that in a few cases this is strictly true, yet we must remember that, in a great majority of cases, these symptoms of the last stage of hydrocephalus are in connexion, not with active inflammation, but with the lesions resulting from inflammation, and already effected; and that, when they appear, the time for bloodletting is generally over. They are the result of organic injury done to the substance and intimate structure of the brain, and more especially done, *through the substance of the brain, to the upper part of the spinal cord*; and of that injury, we think, it cannot be doubted that effusion of serum, *rapidly effected*, is a frequent, probably the most frequent, immediate cause. That a *very slow, gradual* effusion should have no such effect, is a fact strictly in consonance with what is observed as to the growth of tumours, or other causes which gradually compress, alter the form, or even displace portions of the brain or nervous system, without materially injuring their functions. That the very same

symptom should result from disorganization of the cerebral substance, or even from the pressure of blood congested within its vessels, is no proof that serum, where it has been rapidly effused, and presses, as it must then do, in an unusual degree on the healthy brain around it, may not be an adequate cause of the symptoms of the last stage of these very numerous cases where it constitutes a material part of the appearances seen on dissection.*

These observations apply likewise to the statements of Dr. Sims on this subject, which, although highly satisfactory, as showing that much serous effusion may take place in the brain without coma,—indeed almost without any symptom,—would be too much relied on, if they were thought to indicate that serous effusion is in no case an adequate cause of coma. Dr. Sims gives fifty cases of death from diseases not affecting the head, in forty-five of which more or less morbid effusion of serum was found in the brain, “excluding,” he says, “all cases in which coma, convulsion, or other known symptom of cerebral disease had occurred during life;” four of serous effusion along with old apoplectic cysts, where the patients were destroyed by diseases not cerebral: and six of similar serous effusion, of unquestionably long standing, with old apoplectic cysts, where the patients were destroyed by recent extravasation of blood within the cranium.” On looking over these cases, we confess we are not satisfied with the evidence, either that the effusion had in all been of long standing, or that it was in all unconnected with the symptoms recently preceding death. He gives also various cases of simple sanguineous apoplexy, where there was turgescence of the vessels of the brain after death, (an appearance on which, we apprehend, he relies rather too confidently as indicating the state of the parts before death,) but no effusion. But all these cases do not prove that, when serum is *rapidly* effused within the brain or on its surface, it may not be a cause of urgent symptoms, and even of coma, advancing so rapidly as to cause the disease to be set down as apoplexy; they do not therefore justify the conclusion that “most of the cases of reputed serous apoplexy (i. e. where effusion of serum is found on dissection,) are referrible to simple sanguineous apoplexy,” (i. e. to congestion of blood within the vessels, supervening on old and harmless effusion from them;) they only establish the possibility of such an occurrence. It is fair to observe, however, that Dr. Sims is not “prepared to state that no such disease as serous apoplexy exists.” Indeed, if it be admitted that mere increased determination of blood, without effusion, may so injure the texture of the brain as to cause rapidly advancing coma, it seems to follow, *a fortiori*, that such increased determination, with effusion, may do the same. Accordingly, while, in some of the cases recorded by him as “cases of serous effusion of old standing,” where death had taken place in the way of coma, and which,

* We once saw a case in which (not by our advice) more than an ounce of serum had been removed by paracentesis from the ventricles of the brain of a child in the last stage of hydrocephalus, without yielding of the sutures. The effects were, a slight diminution of the coma, a decided reduction of the frequency of the pulse (by more than twenty beats in the minute), and an equally obvious improvement of its strength, and probably a protraction of life for a day or two. Of course, the whole fluid could not be evacuated, and it was very quickly replaced, so that the ventricles were distended when the head was examined after death; but the evidence was clear as to part of the symptoms having been the direct effect of the effusion.

he says, "are frequently termed serous apoplexy, but are more properly referrible to simple sanguineous apoplexy," his statement of the pathology may be correct; there are others (particularly Cases 20 and 21,) in which we think it much more probable that a great part of the effusion found on dissection, had taken place during the continuance of the stupor, drowsiness, delirium, &c., which lasted, in the one case two days, and in the other eight days, before death.

Notwithstanding, therefore, the objections stated both by Dr. Abercrombie and Dr. Sims to the term "serous apoplexy," we cannot help thinking it, both pathologically and practically, the best name for a class of cases of frequent occurrence in advanced life, where the chief symptoms are merely loss of recollection, more or less general, and drowsiness, more or less bordering on coma, with some headache perhaps, but with little or no fever and no palsy, gradually increasing, and fatal after a few days or weeks, and where serous effusion is the chief appearance on dissection. That it is impossible to distinguish such cases with certainty during life, from some of the cases of organic disease of the brain, and that no peculiarity of practice is justified by this opinion of their nature, we willingly admit; but, in fact, the whole pathology of these cases is very much akin to that of cases of "perverted nutrition" within the head.

There is a question regarding serous effusion within the head, on which neither of these authors has touched, but which is probably of some consequence in reference to the variety of symptoms observed in cases where this effusion may be found,—viz. that in some cases the morbid effusion is nearly equally distributed beneath the arachnoid, on the surface of the brain, and in the ventricles; the communication at the posterior end of the fourth ventricle, so particularly noticed by Magendie, being as open as in the natural state; whereas in others this communication is closed, (sometimes by deposits of lymph, sometimes, as it appears to us, merely by the great distention of the lateral portions of the fourth ventricle,) and the surface of the brain is preternaturally dry. The former is the case in the effusions found after fever and after delirium tremens, and likewise (as Dr. Sims's paper shows,) in many of the effusions which take place very gradually in old persons, and are attended, during the greater part of their progress, by no symptoms of diseased brain. But the latter is by far the most common case when the symptoms have run the usual course of hydrocephalus, and when the other appearances are more decidedly inflammatory.

2. There has been some difficulty about the proper view to be taken of softening or "ramollissement" of the brain. Dr. Abercrombie restricts this name to the case of partial softening, without change of colour, giving a few cases only of the "ramollissement jaune" as undefined suppuration, and of the "ramollissement rouge" as inflammation fatal in the first stage. The softening, without discoloration, he was at first disposed to consider as a direct effect of inflammation, often found in connexion with, or even graduating by insensible degrees into unequivocal effects of recent inflammation; but, after considering the statements of Rostan and other French pathologists, he so far modified that opinion, as to admit of another variety of it, not strictly inflammatory, but analogous to the gangrene which results from diseased arteries and impeded circulation; occurring chiefly

therefore in old persons, generally in connexion with apoplectic effusions, and falling peculiarly under the notice of M. Rostan. We have little doubt that he is right in the belief that the lesion in question may depend on both these causes; but, in some cases, we have seen it surrounding apoplectic cysts or in contact with serous effusions, where neither marks of active inflammation nor disease of the arteries was discernible, and where we would regard it therefore merely as a perversion of nutrition, resulting apparently from mechanical injury rather than decided inflammation of the brain. When a recent clot of blood is found in the interior of a softened portion of the brain, it may have happened either that the coagulum effused caused the inflammation and softening, or the disorganization of the brain led to the effusion of blood, and the course of the symptoms only can decide. In some cases, the cause of this lesion is quite obscure. Its symptoms are equally uncertain, although generally it may be regarded as the accompaniment of coma and spasms, rather than of the earlier inflammatory symptoms. The permanent rigidity of the limbs, stated by the French pathologists as nearly a pathognomonic sign, is only a frequent accompaniment of it, and may result, as we have ourselves seen, from nearly an opposite state of the brain. A transient state of tonic constriction of the limbs is common, and often recovered from in fevers. (*Abercrombie*, 109.) In four of the cases mentioned by Dr. Sims, when, after death, ramollissement was found to exist, there was no rigidity; in one only did this symptom occur, and in this a previous state of softening appears to have been cured.

Dr. Sims has applied himself to the question whether this change of texture of the brain is susceptible of cure, and answers it in the affirmative, trusting entirely to an examination of morbid appearances in old cases of diseased brain. His attention seems to have been directed to the red ramollissement, and the softening without change of colour in the white parts of the brain. We have our doubts whether he is correct in the belief that all the appearances he describes were truly the marks of previously softened brain, but other appearances which he has mentioned seem to us satisfactory indications of ramollissement in the process of cure. When we hesitate in arriving at the same conclusion as Dr. Sims, it is rather because the subject appears to require farther investigation, than because we think that he has speculated unfairly on the facts which he has collected. The conclusions at which Dr. Sims has arrived respecting the curability of ramollissement of the brain can scarcely be regarded as applicable to all the forms which that disease assumes. He does not notice that form of which Dr. Abercrombie speaks, and which has much attracted the attention of the French pathologists, where the "cerebral mass is broken down into a soft pulpy mass like thick cream or custard *retaining its natural colour*, but having lost its cohesion and consistence. It may be found in *any part* of the brain." But we will proceed to notice the signs of cure, and the forms of ramollissement which Dr. Sims has commented on, in his own words.

"The traces of cure of ramollissement of the grey matter are, absorption of one or more layers of this substance on the convolutions, and adhesion of the pia mater to the part; *holes in the grey matter of the corpora striata and other central parts, together with atrophy and flattening*. When transudation from the blood-vessels, or extravasation, has taken place, constituting red ramollissement in the grey

matter, a permanent fawn colour of the atrophied convolutions, and of the small holes in the other parts, is observed. The slightest form of this softening of the grey matter is noticed in the case of purpura hæmorrhagica; in others, we have one or more layers removed, or the entire grey matter, leaving the white matter of the hemisphere visible. We sometimes see merely *small holes in the corpora striata*; at others, cavities of various sizes and forms, with a marked wasting of these bodies. The traces of the cure of ramollissement in the white matter are, the numerous clean or scooped-out holes containing a limpid fluid, some of which are observed to be lined by a fine transparent membrane, *others appear as if worm-eaten*. These holes are of various sizes and forms, from minute points to the magnitude of a bean; *the porous cheese or new-bread appearance*; the hardened state of the white matter generally in these brains, and particularly in the parts contiguous to the holes; the granular state of the white matter indicating cicatrices, the hardened state of the corpus callosum, fornix, &c., found in the brains of children and young persons, with fluid in the ventricles; probably the consequence of previous inflammatory ramollissement, at an earlier period of life. Where there is observed the fawn-coloured deposit in these holes of the white matter, they are traces of red ramollissement of the white matter, or probably, in some instances, of what has been sometimes termed capillary apoplexy."

The appearances, the description of which we have given in italics, Dr. Sims has fairly shown to be proofs of ramollissement in process of cure. Cases 1 and 4 strongly illustrate this fact. The worm-eaten and bread-like appearance are here found surrounding cavities lined by a fawn-coloured membrane, or containing shreds of brown filamentous tissue and fluid, (i. e. apoplectic cysts.) We do not, however, think that the holes which are spoken of as clean and scooped out, are shown to be the effects of the cure of softening of the brain, and indeed, of the instance which Dr. Sims has given of these appearances, (Case 5,) he only says that it is "highly probable" that such is the case. The cases which are adduced as evidence of absorption of the grey matter being a result of the cure of ramollissement, are not quite conclusive. There appears to be much reason to believe, that, in Case 6, where a large fawn-coloured deposit occupied the space effected by the absorption of the grey matter of the surface, in some places down to the white matter, this absorption was owing to the pressure from effused blood. A similar and extensive extravasation of the same colour existed between the dura mater and arachnoid, and the brain was atrophied. Cases 7, 8, may also be similarly regarded; in neither of which is there any evidence of ramollissement. That the extravasations there mentioned may *in some instances* be either cause or effect of softening of the brain, there is reason to believe; but there does not appear to have been any change in the cerebral substance, and the only appearances spoken of are those presented by the effused matter itself. But perhaps this is explicable on the view which Dr. Sims takes of the nature of the red ramollissement, as seen in the above quotation, where he speaks of "transudation from blood-vessels, or extravasation," as "constituting red ramollissement in the grey matter." This is an extension of the application of the term which we are not disposed to admit, any more than that such effects necessarily accompany the changes of colour and consistence in other congested or inflamed parts. The extravasation we should regard as something superadded to the red ramollissement, and not necessary to constitute it. Indeed, in a previous part of his paper, Dr. Sims speaks of the colour of red ramollissement as arising from dilatation of the capillaries carrying red blood. (P. 382.)

But that in some instances absorption is an evidence of the cure of softening, we think that Dr. Sims has shown in Cases 9 and 10. In the former, a portion of brain was absorbed, and other portions of grey softened matter adhered to the dura mater at the part; in the latter, the absorption was associated with several small holes, and with ramollissement in an early stage; the symptoms during life having corresponded to the various stages of disease found after death. The hardening which is sometimes found in the parts contiguous to the small worm-eaten holes would also appear to be a part of the curative process of ramollissement; and of a granular structure associated in Case 12, with small holes, Dr. Sims offers the very probable explanation, that it resulted from the coalescence or adhesion of some of these small cavities.

3. In regard to the connexion of inflammation with tubercular disease in the brain, Dr. Abercrombie gives several cases, (81 to 89,) in which tubercles in their advanced stage were found in different parts of the brain and cerebellum, in patients who had previously had some chronic head symptoms, but in whom the symptoms immediately preceding death were those of hydrocephalus, and in all but one, the ventricles were found distended with serum. These were obviously cases in which the tubercles had acted as a permanent predisposing cause of inflammatory action and serous effusion, but give no information touching the original mode of production of the tubercles themselves, farther than that the symptoms attending their original deposition were generally obscure, and that they often coexisted with numerous tubercles in other parts of the body. Dr. Abercrombie observes, however, that "there is reason to believe that the *deposition* of tubercular matters in the brain, as in other parts of the body, is often the result of inflammatory action of a low scrofulous character; that it may at first be excited by injuries or other causes of inflammation, and may then advance gradually in a slow insidious manner;" and he gives two cases in illustration of this, where there was strong reason to ascribe the commencement of tubercles in the brain to external injury. But he does not seem to have observed what we have seen so frequently as to be able to state it as a common occurrence, tubercles in *their first stage* on the pia mater, consisting of roundish nodules of semi-transparent lymph, set on an inflamed base and in connexion both with effusion into the ventricles and with unequivocal indications of recent inflammation; flakes of soft lymph, or "ramollissement rouge," in their own immediate neighbourhood. Such cases we regard as the clearest proofs of the principle which he has here stated, and as satisfactory evidence that in *some* cases of threatening tubercular disease, particularly when the peculiar diathesis is least strong, the timely use of the antiphlogistic remedies may prevent their formation or check their growth, and perhaps sometimes determine their absorption.

II. This subject naturally leads us to consider the strictly Organic Diseases of the Brain and Cerebellum. Indeed, the connexion of these with the inflammatory diseases is obvious and intimate. Other adventitious textures, besides tubercles, are probably often connected with inflammatory action in their commencement, and often act as a predisponent cause of it in their progress; and there is often no possibility, in this as in other cases of internal disease, of distinguishing, during life, the symptoms of simple chronic inflammation and its consequences,

from those which result from the deposition “des matières hétérologues” in the viscera; and therefore we think that the subject of organic disease ought to have been placed by Dr. Abercrombie next to that which we have now considered.

Of the very various symptoms which experience shows to be indications, in different cases, of organic disease of the brain, Dr. Abercrombie makes the following judicious arrangement:

1. In one class of cases, the only prominent symptom during the time when the disease must be making its chief progress is *headach*, long continued and severe, but often remitting remarkably, and even regularly. The diagnosis of this headach is often difficult, particularly as the stomach is often disordered; but the intensity of the pain bears no proportion to the degree of the dyspeptic symptoms, and the increase of the headach from excitement or exertion is often characteristic, especially if the patient was not previously of irritable habit. The face is generally pale, the pulse feeble, and depletory remedies ineffectual. Such cases, and indeed all cases of organic disease in the brain, are exceedingly various in their duration and progress, and may be fatal in various ways, either by inflammatory action and effusion supervening, or by coma or convulsion, or by gradual exhaustion, without serous effusion.

2. In another class, after some continuance of headach, the nature of the disease shows itself by *some affection of the senses* or of the *intellect*. Here, of course, a certain number of cases of amaurosis is included.

3. In another class, there are not only pain of head and some affection of the senses, but repeated attacks of *convulsion*, either in occasional paroxysms without other symptoms, (constituting one frequent variety of epilepsy,) or in repeated paroxysms within a short time, and with febrile and inflammatory symptoms.

4. The next class comprehends other cases of epilepsy, where there are repeated *convulsions without any affection of the senses*, and often with very little pain, in the intervals; the memory being, however, impaired sometimes for a space after each paroxysm, and in general more permanently after the disease has lasted some time.

5. In the next class the most prominent symptom is *palsy*, more or less general, but coming on gradually, with which there is often pain in the palsied limbs; and more or less of the symptoms already enumerated may likewise be present.

6. Another important class of these cases present no obvious affection of the head during the greater part of their course: the symptoms are *referred to the stomach*; and *sickness and vomiting*, sometimes at pretty regular periods, often irregularly, but generally in sudden paroxysms, are the chief symptoms. There is no mystery in this to those who reflect that vomiting is not an affection of the stomach, but an affection of various muscles, excited through the spinal cord by a sensation which probably resides at the medulla oblongata; and which sensation may be produced, no doubt, by certain changes at the stomach, but likewise remarkably by changes at various other parts, and, among others, by changes in the brain, as in sea-sickness and in many cases of concussion. These cases are sometimes attended with headach, and generally, after a time, with fits of delirium or of loss of recollection.

7. The last class which he describes consists of cases where there are

many slight and transient apoplectic attacks; sometimes mere giddiness, sometimes transient loss of voluntary power or of recollection, or absolute coma. With these some of the permanent affections of the senses may or may not be combined. Frequently the fits of giddiness and loss of recollection are brought on by exertion, and relieved merely by rest. We are somewhat surprised that our author did not add to this enumeration of the forms of disease which *may* be connected with organic disease of the brain, the numerous modifications of *partial insanity*.

Now, in connexion with any one of these various sets of symptoms, there may be any one of a considerable variety of organic lesions within the head,—tumours formed by thickening of the membranes or by deposition of lymph between their laminæ; indurations or chronic softening of portions of the cerebral matters, (all which lesions may be ascribed to mere chronic inflammation;) ossifications of the membranes, or exostoses projecting from the inner table of the skull; tubercles; encysted tumours, containing an albuminous matter; dense tumours of whitish or reddish matter, often growing from the membranes, sometimes imbedded in the substance of the brain; serous cysts, and true hydatids.

Dr. Sims has described numerous cases, and referred to others described by previous authors, illustrating the *hypertrophy* and *atrophy* of the brain; the latter of which appears to be commonly the result of the general wasting from age, of extraneous pressure, or of emaciating diseases. Serous fluids, and deposits of bone on the skull, occupy the space which is left by the diminished brain. This bony deposit is frequent on the internal surface of the cranium, but it sometimes occurs within the diploë. To this change is ascribed, with much probability, “the blunted feelings, loss of memory, diminished mental powers, feeble movements, muscular tremors, and probably impaired energies in the actions of the thoracic and abdominal viscera.”

The hypertrophy is certainly to be regarded as a peculiar form of organic disease, consisting in increased, and likewise, to a certain degree, in perverted nutrition, and marked not only by increased bulk of the substance of the brain, (sometimes, in children, leading to great enlargement of the size of the head,) but likewise, in many cases, by flattening of the convolutions, and almost complete obliteration both of the divisions of the convolutions and of the cavity of the ventricles, the surface of the brain being remarkably dry, and its substance usually firm, white, and nearly bloodless. The hypertrophy is sometimes limited to parts of the cerebrum, and it does not appear to affect the cerebellum. Dr. Sims particularly presses the importance of noticing this change, (and, from the fact of its having been little noticed by British pathologists, it would appear that it has frequently been overlooked, rendering such a caution necessary,) from its obvious bearing on the practical treatment of apoplexy and other diseases of the brain. The condition appears to be often connected both with inflammatory attacks and with apoplectic seizures. It is probable that by it apoplexy is more rapidly induced, and that life may be destroyed by a very small clot of extravasated blood. When the firmness and apparent compression of the brain are found, the symptoms generally appear to have been more acute than when the texture of the brain has been more natural. But certain cases of hypertrophy, even with some change of texture, seem to have been

without obvious symptoms. A practical deduction of much importance is strongly illustrated by Case 1, where the operation of tapping the skull was recommended, on the suspicion of hydrocephalus, but where, after death, the brain was found to be simply hypertrophied. But the means of diagnosing this affection remain a subject for future investigation. We subjoin an abstract of a very elaborate table, containing the result of an examination instituted to ascertain the average weight of the healthy brain. The result very nearly corresponds with that of Sir William Hamilton; Dr. Sims estimating by avoirdupois, and Hamilton by troy weight.

Years.	Number weighed.			Average.
1 to 2	—	9	—	2 lb. 1 oz. nearly
2 to 3	—	3	—	2 $4\frac{1}{3}$
3 to 4	—	5	—	2 $6\frac{1}{5}$
4 to 5	—	3	—	2 7
5 to 10	—	9	—	2 $8\frac{4}{9}$
10 to 15	—	14	—	2 $12\frac{4}{14}$
15 to 20	—	3	—	2 13
20 to 30	—	19	—	2 $12\frac{1}{19}$
30 to 40	—	22	—	2 $13\frac{1}{22}$
40 to 50	—	29	—	2 $14\frac{2}{29}$
50 to 60	—	35	—	2 $13\frac{3}{35}$
60 to 70	—	42	—	2 $11\frac{3}{42}$
70 and upwards	—	44	—	2 $10\frac{5}{44}$

“The inference from this table is, that the average weight of the brain goes on increasing from one year old to 20; between 20 and 30 there is a slight decrease in the average; afterwards it increases, and arrives at a maximum between 40 and 50; after 50 to old age, the brain gradually decreases in weight.”

As, during the greater part of the progress of most cases of organic diseases of the brain, the most important symptoms observed are of short duration, and often at long intervals, it is quite obvious that these symptoms cannot depend *solely* on the permanent lesions of texture which appear on dissection. The simplest view of their connexion with the organic lesions is, that the latter are great and permanent *predisposing* causes of the diseased actions on which they immediately depend. The *exciting* cause of the occasional urgent symptoms is most generally to be sought in a disordered state of the circulation in the head; and here we perceive the close connexion of these organic diseases with the next great genus of diseases of the brain.

III. Of the Apoplectic Cases, Dr. Abercrombie, after enumerating the most common premonitory symptoms, makes three general divisions: 1. Those which are primarily apoplectic; i. e. where the patient becomes comatose suddenly. 2. Those in which the patient is first seized with pain of head, sickness, and faintness, and often falls down, but almost immediately recovers himself, and then passes gradually into fatal coma. 3. Those in which the first attack is of paralysis, more or less general, without stupor, or with slight and transient stupor only.

In the first class, in which the patient is comatose from the first decided attack, it is singular that he does not include a single example where extravasation of blood had occurred; all the cases he has seen

were either successfully treated, or, if fatal, showed on dissection either the serous effusion of which we have already spoken, or no morbid appearance at all; in which last case he uses the term Simple Apoplexy. This appears to be more frequent at or before the middle period of life than in advanced life; it is often preceded by indications of a disordered state of the circulation, and Dr. Abercrombie seems to consider it as always dependent on that cause; but in some cases we think it must be admitted that no such indication can be observed. Of the deranged state of the circulation which would seem to be the sole cause of apoplexy in such cases, and a great part of the cause of urgent affections of the head in many other cases, we shall say a few words presently.

We must observe, however, that there are certainly cases of apoplexy from extravasation of blood, in which the patient becomes insensible suddenly, and coma, if not the first symptom, takes place within a very few minutes after the attack. Indeed, Dr. Abercrombie himself gives two cases of this kind in a subsequent section, (Nos. 116 and 117,) the first of which is remarkable on account of its very short duration; not above five minutes having intervened between the first attack, marked by a loud scream, and the death of the patient. Many of the cases, likewise, of apoplectic extravasation recorded by M. Rostan, in his work "*sur le Ramollissement du Cerveau*," indicate that the occurrence of any symptoms previously to those which are evidence of extravasation, is by no means so rare as Dr. Abercrombie's experience leads him to conclude it to be; and this certainly accords with our own experience. M. Rostan mentions six cases as occurring "*sans signes précurseurs*."

2. Dr. Abercrombie has distinguished more accurately, we believe, than any other author a description of cases which, as he says, are not primarily apoplectic, but in which effusion of blood is found more uniformly, and to a greater extent, than in any others; cases where the first attack is of sudden and violent pain, "the patient often starting up and screaming from the violence of it; sometimes he falls down, pale and faint, often with slight convulsion, but very soon recovers from this state. In other cases he does not fall down, but feels great uneasiness in his head, with paleness, sickness, and often vomiting;" the first attack is so far recovered from that the patient often walks home, but the pain of head usually continues, with paleness, coldness, a weak and generally frequent pulse. As the pulse improves and the countenance becomes more natural, then often flushed, the patient becomes more drowsy, and at last sinks into coma, from which he never recovers. The period that intervened between the first attack and the commencement of coma varied, in the different cases he records, from fifteen minutes to three days; indeed, in one case there was reason to believe that fatal coma was connected with an attack of sudden pain, giddiness, and insensibility, a fortnight previously. Generally, however, this interval does not extend beyond a few hours.

Now, on examination after death in such cases, says Dr. Abercrombie, we find none of those varieties and ambiguities which occur in the strictly apoplectic state, but uniform and extensive extravasation of blood. The rupture of a pretty large blood-vessel had caused the first attack of pain, and the symptoms of *concussion*, particularly the faintness and feeble pulse; as this went off, the quantity of blood effused

gradually increased, until its pressure on the brain was sufficient to produce coma. "In their whole progress, these cases are strictly analogous to those of extravasation on the surface of the brain from external injury," of which it has been generally held since the time of Pott, that an interval of recovery of sense, after the first shock, and a relapse within a few hours into coma, are the surest indication. We may add that, as the situation of the ruptured vessel in these cases is generally such as to allow the effused blood to spread itself immediately over a considerable surface, the symptoms of the first concussion are in accordance with the doctrine of Dr. Wilson Philip, that any impressions on the nervous system which immediately affect the heart must be made on a large surface of nervous matter.

We quote only a single case of this description, which is remarkable both for its short duration, and for the satisfactory explanation of its rapid progress which the inspection of the body afforded.

"A soldier was seized with giddiness, and fell down: on being raised, he vomited, and complained of violent headach and faintness, but was quite sensible; he was very pale, and his pulse slow and languid. Being carried to the hospital, he asked for cold water, which he swallowed, and seemed relieved from the faintness, but continued very pale. In a few minutes, his eyes became fixed, he *drew deep inspirations*, and in two minutes more he was dead. From the moment of seizure he did not move any of the extremities. On inspection, nothing unusual was discovered in the brain. The vessels of the cerebellum appeared very turgid, and, on removing the cerebellum, a coagulum of about two ounces of blood was found under it, *surrounding the foramen magnum*; which must obviously have pressed on the origin of the par vagum, and so first excited and then suppressed respiration."

3. Dr. Abercrombie's third class (paralytic cases,) consists of those where there has either been no apoplexy, or the apoplectic state has soon passed off, leaving the paralysis, as the more permanent and prominent character of the disease." After remarking on the well-known variety of such cases, both as to the extent and degree of the paralysis, and as to its abatement or permanence, he divides cases of this kind according to the different appearances on dissection, (which, however, can only be guessed at during life,) into the paralytic cases with serous effusion only, or slight morbid appearances; of which we shall say a few words presently;—of those with extravasation of blood to a small extent; of those with ramollissement, and those with other effects of inflammation. He has accurately described some of the varieties of the alterations of sensation which occur in such cases, and some of the curious modifications of the faculty of memory, particularly the loss of the memory of words, while the patient seems to have perfectly distinct ideas of things and their relations; the loss of the memory of one class of words, (most commonly substantive nouns,) while others are remembered; and the loss of all recollection of the right name of a thing, while a new name for it is either invented or transferred from some other object, but, after being once applied, is never again varied. (See p. 277.) It may be added that, besides these very common perversions of the natural associations of ideas in paralytic cases, there is very often observed such a torpor in the succession of thoughts in the mind, that a single object of thought is evidently obtruded on the attention for hours together; or a single emotion, once excited, dwells in the mind for a very unusual time, which is obviously the cause of paralytic persons having so frequently

little apparent command over the usual external manifestations of emotion.

Our author very justly insists on one fact in regard to palsy, on which, in the absence of any other indications of the nature of its cause, we ought always to reflect, viz. that "certain cases of it depend on a cause which is of a temporary nature, and may be very speedily and entirely removed;" some of them being probably connected with some local determination, or other derangement of the circulation, without extravasation or permanent lesion of the cerebral texture; others with extravasations or injuries already of old standing, and the effects of which do not extend far from their own immediate vicinity. We cannot be surprised at this when we reflect on the very great variety of formidable symptoms of affection of the brain which may show themselves in cases of simple concussion, and completely disappear after two or three days, although, as Sir B. Brodie well observes, we can hardly conceive such symptoms to be excited by an injury otherwise than by some imperceptible lesion of the delicate structure of the nervous matter.

In the case of palsy from extravasated blood, it is obvious that the abatement of the symptoms depends on the absorption of the coagulum; and this again depends very much on the condition of the cerebral substance just around the coagulum. When there is much softening around it, the case may be speedily fatal, although the extravasation has been slight. This softening, Dr. Abercrombie says, "seems to arise from a diseased state of the arteries of the part; the same, probably, which generally gives rise to the extravasation:" but we apprehend it very often arises also from the inflammation which the effused blood excites in the portion of brain on which it intrudes, and that subduing this inflammation is one of the main objects of the antiphlogistic remedies employed in recent palsy.

As to the time and mode of the absorption, and the appearances in the brain which may be held to indicate that this process has been going on, there is some discrepancy of statement in the works before us, and evidently considerable variety in nature. It is certain that the length of time that elapses before the coagulum disappears is very various. Dr. Abercrombie has described a case (No. 127,) in which nothing but an empty cyst remained in the brain, to account for a stroke of palsy which had occurred five months before; while, on the other hand, we have the authority of Serres for coagula remaining unabsorbed in the brain for two or even three years. In general the change that occurs seems to be that the coagulum is surrounded by a membranous cyst, which is of a yellowish colour and soon becomes organized, (which we apprehend to be a product of the inflammation it excites in the adjoining portion of brain;) and that, when thus enclosed, it is first decolorized, and then gradually absorbed; the organized cyst remaining generally with some soft bands of lymph crossing its interior, and containing in most instances a little serous fluid, and, although gradually shrinking in size, hardly ever becoming completely obliterated till the patient's death. But, although this seems to be the process that is gone through when the health is most completely restored after the paralytic stroke, yet it is a process evidently capable of being variously modified by any disordered condition of the system; in which case, as has been very distinctly pointed out by

Andral, an effusion of blood may gradually be converted into very various forms of organic disease.

On the treatment of apoplectic cases, with or without paralysis, perhaps the most important observation made by Dr. Abercrombie, and illustrated by a reference to his numerous cases, is "that there are no symptoms which characterize a distinct class of apoplectic affections, which in their nature (if seen from their commencement,) do not admit of bloodletting." He gives, in particular, several cases, "occurring in old and infirm people, which might have been considered as modifications of the disease, not admitting of active treatment, yet under such treatment terminating favorably;" and he reminds us that, "in apoplectic affections, the strength of the pulse is a very uncertain guide; for nothing is more common than to find it, on the first attack of apoplexy, weak, languid, and compressible, and becoming strong and full after the brain has been in some degree relieved by large bloodletting."

It is unnecessary to dwell on the importance of free and repeated purging in apoplectic cases, nor on the use of cold applications, and the other parts of the antiphlogistic remedies and subsequent regimen; but we cannot omit quoting the important observation, that "we have been too much in the habit of believing that paralysis of any considerable standing depends on a fixed and irremediable disease in the brain." We see many "recent cases of it completely carried off in a few days; we see others recover more gradually," but completely, within a few weeks or months; and, in many cases of long-continued palsy, where the patient has died of some other disease, we find no morbid appearance in the brain that seems adequate to account for the diseases; certainly no greater lesion of the structure of the brain than has existed in many other cases, where there was no palsy. Thus we know that there are many examples on record of very sudden recovery even from palsy of old standing.

"A case," says Dr. Abercrombie, "occurred to a friend of mine. A middle-aged man was suddenly attacked with hemiplegia and loss of speech, while using violent exercise: all the usual practice was employed without any improvement for a month; the paralytic limbs then became one day suddenly convulsed, and, when this subsided, the paralysis was gone." . . . "A woman, who had been paralytic from the age of six to forty-four, suddenly recovered the perfect use of her limbs when much terrified during a thunder-storm, and making violent efforts to escape from a chamber where she had been left alone. A man, who had been many years paralytic, recovered in the same manner when his house was on fire; and another, who had been ill six years, recovered suddenly in a sudden paroxysm of anger."*

"Such examples point out a most important principle in regard to paralysis, namely, that cases of it, even of long standing, sometimes depend on a cause which may be removed entirely, and removed almost in an instant;" in fact, we now know that they depend very generally on a cause acting in a part of the nervous system at some distance from those parts of it on which sensation and voluntary motion *immediately* depend; and that, although the influence of the injury done to the brain very often extends downwards to the medulla oblongata and spinal cord, yet it does not do so uniformly, necessarily, nor permanently.

We have not, however, as yet, any remedies on which we can rely,

* Diemerbroeck.

and which we can effectually control, to be used in imitation of the spontaneous beneficial changes which attest this principle. In order that any stimulating remedies may be used with safety, Dr. Abercrombie thinks it necessary that "the system should be at the same time kept in a very low state by spare living and occasional evacuations." He passes several such remedies (among others, strychnine,) in review, but concludes, on the whole, that, in general, as auxiliaries to the natural process of restoration of power, "we can employ nothing better than much dry friction and persevering exercise of the limbs themselves, as soon as they shall have recovered the slightest degree of motion." It may be hoped that more powerful remedies of this class may yet be devised; but it is plain that the main object must always be so to regulate the circulation within the head as to prevent renewals of the apoplectic paroxysm.

We must here say a few words of the speculation of Dr. Kellie, Dr. Abercrombie, and many others, on that peculiarity of the circulation in the head which must certainly be an element in the pathology of all the diseases of the brain,—viz. the circumstance of the circulation being here confined to a cavity which is completely protected from the pressure of the atmosphere, and which is always filled with matters that are nearly incompressible. The natural consequences of this proposition, if strictly true, are, that the cavity of the cranium cannot contain either more or less blood at any one time than at any other, and that no unusual quantity of blood can be either added to it or subtracted from it, without an equal quantity, within the same time, making the opposite movement. That the proposition is true, or very nearly so, appears distinctly from various facts, particularly from the observation of Dr. Kellie, that, in animals bled to death, when the cranium is entire, the vessels of the brain are found well filled, or at least not drained of blood like those of other parts of the body, (excepting in a few cases where the place of the blood that had drained from the vessels seemed to be taken by a little extra-vascular serum;) but, if an opening is previously made in the cranium with the trephine the vessels of the brain are as completely drained as those of other parts; again, from the observation of Dr. Monro and others, that, after strangulation, the vessels of the brain do not appear peculiarly distended; and lastly, from the observation of Gendrin and Beclard, that, after decapitation, these vessels are found as turgid as usual.

But, while it is easy to be assured of this peculiarity in the circulation within the head, and of its important use in the healthy state, in rendering the pressure on the brain much more uniform than it could otherwise have been, it is not so easy to be certain of the effects it will produce in the different diseased states of the circulation; and we confess ourselves doubtful how far Dr. Abercrombie's speculations in regard to it are well founded.

He endeavours to form a judgment of the effect which will result either from increase or diminution of the impetus with which the blood enters the cranium by the arteries, on the relative quantities of blood in the arteries and veins within the cranium; and supposes that any derangement of that relation will materially derange, or even suspend, the functions of the brain. Without pronouncing definitively on this point, we think a simpler view of the consequences of derangement of the circu-

lation within the head may be taken, requiring only this preliminary postulate, that the natural state of the functions of the nervous system requires that the nervous matter be subjected to a certain degree of *pressure*, and that either increase or diminution of that pressure, if rapidly effected, will injure or suspend these functions. It is plain that, although the *quantity* of blood within the cranium can hardly be altered, the *impetus* with which it enters, and the degree of pressure it exerts on the nervous matters, is liable to much change; and it is well observed by the late Dr. Monro, that, the less compressible we suppose the substance of the brain to be, the more easily we can conceive it to be injured by an excessive impetus of the blood against it.

In the natural and healthy state it is obvious that the circulation may be very much accelerated, and the impetus of the blood by the arteries much increased, as by exercise, full diet, or a moderate quantity of stimulating liquors, without the functions of the brain being impaired; the succession of mental acts being only somewhat accelerated; but in such cases there can be no doubt that the velocity of the flow of blood in the veins, (every where much dependent on the impetus of the blood in the arteries, and particularly so in the cranium, where the whole quantity of blood is so uniform,) is increased just in proportion to the increased impetus by the arteries, and the substance of the brain thereby escapes any morbid pressure. But if, along with the increased impetus, there be any obstruction, general or partial, to the free passage of the blood through, or its free exit from, the vessels of the head, the nervous matters will be generally or partially compressed, and some alteration of its functions may be expected. Now, this obstruction to free circulation may be from various causes; and therefore various causes render an increased impetus of blood in the arteries of the head dangerous. Thus, a diseased state of the vessels themselves, or tumour already existing within the cranium,—an impediment, whether permanent or occasional, to the free descent of the blood along the jugular veins, (as in the whooping cough of children, or in various diseases of the heart and lungs in adults,) becomes a cause of increased pressure, and sometimes of effusion on the brain and of urgent symptoms. Again, the free passage of the blood through the vessels within the cranium, as in all other parts of the body, is in a great measure dependent on causes not yet elucidated, but which are known to act exclusively in the small capillaries. When the causes which in the natural state promote the flow there are deficient, the arterial blood will have a difficulty in making its way, and there will be an increased pressure, and perhaps effusion; and this seems to be what happens in fever; in which case, without admitting the old theory of a spasm of the capillaries, we may safely affirm that there seems to be generally over the body a deficiency of vital action in the capillaries, demanding an increased or more frequent impulse from the heart, in order that the circulation may be maintained.

Again, when the impetus of the blood entering the cranium by the arteries is diminished, if it be done very gradually, the flow by the jugular veins is proportionally retarded; the pressure on the brain remains uniform; and in such a case we know (as, e. g., in the case of a patient dying of enteritis,) that the head may remain perfectly clear, and the senses quite entire, after the pulse has become imperceptible at the

wrist. But, when the impetus of arterial blood on the brain is *suddenly* diminished, the mere circumstance of retarded efflux of blood by the veins is inadequate to compensate for that diminution; the pressure previously exerted on the brain and medulla oblongata is sensibly lessened, and more or less of insensibility results. This appears distinctly to be the rationale of the insensibility of syncope from loss of blood, from the erect posture, and from tapping for ascites; and likewise, according to Dr. Kay, of the insensibility of asphyxia; and all these cases appear to be illustrated by the insensibility produced, in the experiments of Magendie, by suddenly drawing off the "cerebro-spinal liquid."

There are a few cases of disease, in which the diminution or extinction of sensibility, and the state of coma, more or less profound, connected with diminution, not increase of the pressure of arterial blood on the brain, are exemplified; and these have attracted a good deal of attention of late years. Dr. Marshall Hall has given to such cases, occurring in children, the title of *hydrocephaloid*, which we think a fair and appropriate one; but we cannot admit his claim to priority in distinguishing and describing them. His words are, "I first gave a cursory sketch of this morbid affection in a little volume of 'Medical Essays' published in 1825.—It has since been briefly noticed by Dr. Abercrombie, in his valuable 'Researches,' &c., published in 1828.—Lastly, Dr. Gooch has treated of this affection in his excellent 'Account of some Diseases peculiar to Women,' published in 1829. . . . These dates will settle the questions of priority and originality." But he does not seem to be aware that the substance of the greater part of Dr. Abercrombie's book was published in the Edinburgh Medical and Surgical Journal as far back as 1818. From the Number for November of that year (vol. xiv. p. 581,) we extract the following passage, which, we happen to know, was quoted and commented on by some of the teachers at Edinburgh, in 1820-21.

"In the end of diseases of exhaustion, patients frequently fall into a state resembling coma a considerable time before death, and while the pulse can still be felt distinctly. I have many times seen children lie for a day or two in this kind of stupor, and recover by wine and nourishment. It is often scarcely to be distinguished from the proper coma which accompanies affections of the brain. It attacks them after some continuance of exhausting diseases, such as tedious and neglected diarrhoea; the patients lie in a state of insensibility, the pupils dilated, the eyes open and insensible, the face pale, and pulse feeble. It may continue for a day or two, and terminate favorably, or it may be fatal. This affection is the only disease that I have seen which corresponds with the *apoplexia ex inanitione* of the older writers."

This is obviously the same affection as is described by Dr. Hall, at p. 66-7 of the work before us. Dr. Abercrombie adds, "I have seen in adults an affection approaching to this, and from the same cause. A man considerably advanced in life, from a neglected diarrhoea fell into a state very much resembling coma; his face pale and collapsed, but his pulse of tolerable strength. An elderly lady, from the same cause, had loss of memory and squinting. Both these cases recovered by wine and spirits." In some such cases we have seen, on dissection, decidedly morbid serous effusion within the cranium, though attended with none of the indications, and preceded by none of the symptoms of inflammation.

Dr. Abercrombie has illustrated this point further in his later work by

several cases, in which, after great loss of blood from various causes, when the pulse was frequent and feeble, easily excited, and the countenance pale and exhausted, there was much complaint of headach, throbbing in the head, giddiness, tinnitus aurium, &c. generally attended by palpitation, and much increased by any exertion; and all these symptoms were effectually relieved by the cautious use of wine and of a fuller diet. (P. 306 *et seq.*) The cases described by Dr. Marshall Hall and by Dr. Armstrong, under the title of Reaction after the Loss of Blood (likewise very distinctly described by Rush, in his treatise on Bloodletting,) are of the same general character. How far the symptoms in such cases, which bear so striking a resemblance to those of plethora and increased determination to the head, are to be ascribed to the stagnation of the venous blood and turgescence of the veins, consequent on the diminished influx from the arteries, or how far they may be more directly ascribed to that diminished arterial flow and diminished pressure, it is difficult to judge; but it is plain that another element must enter into the explanation of at least a part of these symptoms,—viz. the increased irritability or mobility, and more rapid (even although they be more feeble) contractions of the heart, which are observed in these circumstances.

After all that has been said of the consequences which appear to result from the peculiarity of the circulation within the cranium, it is still to be borne in mind that, within the cranium itself, the distribution of the blood in the different small vessels is liable to varieties, equally as in other parts of the body, which depend on causes acting on individual portions of the brain or of its membranes, and are exemplified in the case of partial inflammation or in the growth of all kinds of organic disease, and which are compatible with perfect uniformity in the whole quantity of blood entering and leaving the cranium. And, when we speak of the effects either of increased or diminished impetus upon, or of accelerated or retarded transmission of blood through the brain, we must also remember that many of these effects are in a great measure determined by the sound or diseased state of the vessels in different parts of the cranium; the influence of which on the production, not only of extravasation of blood, but of other diseases of the brain, appears from many facts in the volumes before us.

We have already expressed our conviction that the different genera of disease now briefly considered, do by no means exhaust the pathology of the nervous system, and we think it obvious that there are two others, of sufficiently distinct character and sufficient practical importance, to demand a short notice here.

The first is, the case where the functions of the nervous system are deranged, (symptomatically we admit,) not by any alteration of its supply of blood, nor of the nutrition of its texture, but by a vitiated state of the blood which pervades it. We here allude, not merely to the effect of poisons absorbed from the stomach, skin, or lungs, nor to the contagious poisons, also absorbed from without, and “multiplying themselves in the mass of blood,” nor to the purulent or other inflammatory effusions which seem certainly to circulate in the blood in the cases of inflamed veins; but especially to the effect of excretions, formed and retained in the blood, instead of being thrown out by the natural outlets. The poisonous nature of all excretions, if retained in the circulating fluids, is

indeed a general law, not only of all animals, but of all living beings, and the nervous system of animals seems distinctly to be the part of their frame, on which they exert their chief noxious influence. The most striking example of this kind is the *ischuria renalis*, where the excretion by the kidneys is suppressed, and the urea formed circulates in the blood; a case which is well known to terminate almost uniformly, as the symptoms produced in an animal by extirpation of the kidneys do, by death in the way of coma. A more common occurrence is the alteration and great diminution of the solid contents of the urine in cases of Bright's disease of the kidneys; a considerable proportion of which cases are also fatal in the way of coma. When death has been produced in either of these ways, we have repeatedly found, on dissection, that the profound coma and spasms preceding it had been unconnected with any serous effusion or perceptible disorganization of the brain, but connected with the appearance of urea in the blood, and in the usual effusions on all the serous surfaces. We repeatedly have seen jaundice terminate fatally in the way of coma, and found on dissection, in every such case, the brain healthy, and bile ducts *pervious and empty*; and this has been so often remarked by others, (Morgagni, Marsh of Dublin, &c.,) that we can have no doubt of this being the usual state of things in that form of jaundice, and that the *retained* excretion of bile is more decidedly and rapidly poisonous to the nervous system than the *reabsorbed* excretion in the more usual forms of jaundice. And, when we observe the similarity of the delirium, spasms, and coma in such cases, to those of bad typhoid fever; when we consider how all the excretions are altered in that case, and remember that any serous effusion or obvious disorganization in the brain after such fever bears no fixed proportion to the degree of such symptoms, and is often altogether absent when such symptoms have been urgent; we are naturally led to the belief that much of the affection of the brain in the course of fever, and of other epidemic diseases, is to be ascribed to the depraved quality, not to the increased quantity or impetus of the blood. This is a subject, however, the truly scientific investigation of which is only now commencing, and on which it would be premature to speculate farther at present.

The last enquiry on the pathology of the nervous system is one of the most interesting of all, but likewise, hitherto, very imperfectly investigated; viz. What is the nature and extent of the alterations which its functions can undergo in disease, independently of any known or perceptible alteration, either of its structure or of the quantity or quality of the blood which pervades it?

The case of simple apoplexy is one in which not only no effusion capable of injuring the nervous system is perceptible, but no alteration of structure can be detected, and there are certainly cases of that kind in which no indication either of increased or diminished impetus of the blood on the brain, such as might cause distention either of arteries or veins, can be observed. Some cases of epilepsy, or of hysteria nearly akin to epilepsy, appear to be nearly in the same predicament. Cases of concussion, cases of syncope, or even of sudden death from mental emotion, and still more remarkably cases of hysterical coma, all instruct us that the functions of the nervous system may be completely suspended,

without any such injury of its texture as can prevent a speedy and complete retention of all its vital powers; and, notwithstanding all that has been written on nervous disorders, the possible extent and varieties of these strictly functional affections of the nervous system (which form a study in themselves, and cannot be treated as the consequence of any known change in the condition of the organs diseased,) still require to be laid down and defined. Dr. Abercrombie has given several fatal cases of paralysis long continued, with pretty violent spasms, (Nos. 154,-5,-6,-7,) in which nothing morbid could be detected after death; and several cases both of spasmodic and paralytic symptoms, (p. 399 *et seq.*) apparently exactly similar to those which depend on organic disease, but of which the ultimate result was so favorable as nearly to set aside that supposition. Cases of neuralgia abating under the use of bark, arsenic, steel, hydrocyanic acid, &c. must be regarded likewise as strictly functional; and the same may be said of chorea, of the whole tribe of hysterical affections, of catalepsy, and of the strange and anomalous disorders commonly called spasmodic, but more properly regarded as perversions of the mental part of the process of voluntary motion, which have been so often observed to be propagated by imitation, and so to become epidemic. It may be said, indeed, that in all these cases there is some disorder of the circulation in the head; but, although this be admitted, it is plain that this disorder must be slight, probably not more than can exist in other cases, without any symptom resulting from it; and that some other condition of the nervous system itself must coexist with it in order to produce these singular effects.

The most curious question that has lately attracted attention, illustrating the degree of alteration of the functions of the nervous system, which may take place independently of any apparent injury of its structure, is that which regards the reality or fictitious nature of the statements we have of the state of somnambulism or "extase," and of the influence of what is termed animal magnetism in exciting it. The most numerous collection of statements on these subjects recently published is that contained in the work of Mr. Colquhoun, to which he has given the fantastic title of *Isis Revelata*. It was our intention, on commencing this article, to hazard a few observations on the very curious matters contained in this volume, (foreign as we know some of our readers may think them to the legitimate subject of the article,) with the hope rather of placing the subject in a proper point of view, than of enabling our readers to arrive at a positive conclusion in regard to it. Our materials, however, have already run to so great a length that we must postpone this discussion for the present.

ART. II.

1. *Clinical Illustrations of the more important Diseases of Bengal, with the result of an Inquiry into their Pathology and Treatment.* By WILLIAM TWINING, First Assistant Surgeon, General Hospital, Calcutta. 2d Edition.—Calcutta and London, 1835. Two volumes, pp. 481 and 438.
2. *A Treatise on the Functional and Structural Changes of the Liver in the Progress of Disease; and on the Agency of Hepatic Derangement in producing other Disorders; with numerous Cases exhibiting the Invasion, Symptoms, Progress, and Treatment of Hepatic Disease in India.* By W. E. E. CONWELL, Surgeon of the Madras Establishment.—London, 1835. pp. 531.
3. *Transactions of the Medical and Physical Society of Calcutta.* Vols. VI. and VII.—Calcutta and London, 1833-1835. 8vo. pp. 509 and 497.
4. *The Indian Journal of Medical Science.* Edited by FREDERICK CORBYN, Esq.—Vol. III. Calcutta, 1836.

VARIOUS considerations induce us to look with complacency on the productions of the Indian medical press. In the first place, it is gratifying to observe that the zeal displayed by our European brethren to supply the deficiencies and correct the errors which disfigure the most ennobling of secular pursuits, finds its counterpart in the sultry regions of Hindostan, in spite of a climate singularly enervating to all, and of allurements to indolence and luxury which might be expected to seduce at least the young. Reflecting, moreover, that no inconsiderable proportion of our more juvenile readers may find in India a field for their talent and industry, we consider it our duty to arm them for the conflict they may have there to wage, by imparting to them the best information in our power regarding the works published in that country. We would remark, too, that our own seasons are not uniform, and that occasionally we have observed in those of unusual warmth deviations from the ordinary type of diseases, which rendered an acquaintance with the maladies prevailing in the vicinity of the tropics a matter of great practical value. The converse of this is likewise true: in the hill stations of Hindostan and the mountains bordering on Thibet, the type of disease approximates to the European, and we may thus in our every-day pursuits derive many a useful lesson from fellow-labourers so enlightened and zealous as those in India. When we consider, too, that there are in the Honorable Company's service alone eight hundred medical men who have received a good education dispersed over a territory comprising every variety of soil and climate, and countless inhabitants of extremely diversified physical constitution and manners; that there exists at Calcutta a medical society consisting of nearly four hundred members, and publishing Transactions which may vie in copiousness and originality with any in the western world; and that from the press of the same place there issues monthly a *Journal of Medical Science*, which, besides being freighted with "the wealth of Ormus and of Ind," takes acute cognizance of our own proceedings, the reader will acknowledge that we are sinking a shaft into a

mine of almost boundless richness, calculated, (to use the expression of the excellent journal we have just named,) "to afford a source of heart-stirring interest to our brethren in Europe."

The "Illustrations" of the late Mr. Twining are characterized by that patience in research, philosophic modesty of induction, and sound judgment, which that able and estimable man carried into every pursuit in which he engaged; qualities which, we have no doubt, occasioned his being enjoined to undertake this work by the late Dr. Gibb and Mr. Ogilvy, the head of the medical department of the presidency of Bengal. Well has he discharged this flattering obligation! The prefatory essay on the Climate and Seasons of Bengal, and their influence in the production of disease, appears to us a model for such writings. In the moderate compass of fifty-four pages, we find information, precise without tediousness, on the climate and meteorology of the low lands of Bengal, of the mountain-stations of the same district, and that Montpellier of the eastern world, the Neelgherry mountains in the Mysore country. The rise and decline of epidemics according to the different seasons of the year; the influence of the climate on Europeans and on their children, and the question of tropical hygiene, find within the same space ample and judicious discussion. The author corrects a popular error regarding the supposed infrequency of urinary calculi in India.

"The Transactions of the Medical and Physical Society of Calcutta contain ample evidence of the frequency of stone in the bladder, both in Europeans and Asiatics. The splendid and numerous specimens in the Society's museum, furnished principally by Mr. Burnard of Benares, and Mr. Brett of Shajehanpore, and the history of the cases attached to those specimens, bear testimony to the frequency of the disease, as well as the skill and science with which those gentlemen perform one of the most dangerous operations in surgery. The successful operations of Messrs. W. Darby, W. Bell, and Dr. W. L. McGregor afford evidence of the frequency of the disease among the inhabitants in the vicinity of the great Himalayan mountains, and to the westward of the Indies, among the Seiks. In the lower provinces of Bengal, the disease is by no means rare. Mr. Egerton has recently operated on an European child, and on a native, in Calcutta, and numerous other cases might be mentioned. I have myself several times met with urinary calculi among Europeans, Indo-Britons, Hindoos, and Mahommedans." (*Illustrations*, p. 23-4.)

On the subject of *phthisis pulmonalis*, he confirms, from experience of the climate of Bengal, a remark we have often made in the south of Europe, that this disease, if it have attained the stage of softening, proceeds with greater rapidity in the warm than the cold or temperate regions of the globe. He allows that, in a less advanced stage, benefit is derived from a residence in India; his remark in this respect corresponding still with what is observed of the influence of the southern portions of our own continent on this disease. Asthma, he says, is as severe and intractable a disease in Bengal as in Europe.

The first disease illustrated by Mr. Twining is dysentery. This description corresponds in substance with that drawn by Pringle and Monro from cases witnessed in a different climate, and, with the exception of the phrase "*pyrexia contagiosa*," and with allowance for conciseness of expression, with that contained in Cullen's *Nosology*, thus confirming the view we have ever taken, that the difference between tropical dysentery and that of more temperate climates is one rather of degree and

accidental complication, than of essential nature. Mr. Twining adopts the opinion now generally prevalent, and we believe generally true, that dysentery "is an inflammation of the mucous membrane of some part of the large intestines."

After a description of pathological appearances perfectly consistent with this opinion, but so minute and copious that we must leave its details to be perused in the work itself, the author proceeds to the important subject of treatment. We are happy to observe that, though this is so perfectly consistent with the pathology of the disease, that in its broader features it might be deemed, to use an expression of M. Louis, a corollary from it, yet those specialities, by which certain remedies are found to be applicable to the treatment of inflammation according to the structure and function of the organ it occupies, (specialities which only experience, direct or derivative, can teach,) are not neglected. This is exemplified in his abundant employment of ipecacuanha; a remedy, the great power of which over this disease is the subject of praise by writers contemporary with its first introduction into Europe. By the encomiums bestowed upon it by Magnatus, Piso, Ray, Johan de Lecat, Lemery, and Pomet, our enquiring and industrious author appears, from his reference to their works, to have been induced to give it that trial which in his hands has proved so successful.

The following is his account of the proceeding adopted in ordinary cases:

"Treatment. The cure of severe cases of acute dysentery in plethoric patients should be attempted, by the early, free, and repeated use of the lancet; with the aid of every other means by which we can subdue local inflammation and pyrexia. It will in general be requisite to bleed from the arm, two or three times, at the interval of eight or twelve hours, and to take as much blood each time as shall decidedly reduce, and permanently keep down any frequency and hardness of the pulse that may exist. And twelve or sixteen leeches should be applied soon after each general bleeding, to that part of the belly where pressure causes the greatest pain. In most cases it will be proper to continue this repeated abstraction of blood as long as pyrexia exists, or pressure on the belly gives pain, or there is any blood in the stools. A tepid bath should be used once a day, and the best time for it will be two hours after the leeches are removed. With this system of depletion, a dose of castor oil is given an hour after the first bloodletting; and when it has operated freely, the patient is made to take six grains of the powder of ipecacuanha, with four grains of extract of gentian, and five grains of blue pill, mixed and divided into three pills. These pills are repeated every night and morning; and twenty grains of powdered jalap, with forty grains of cream of tartar, are given daily at eleven o'clock in the forenoon. In ordinary cases of dysentery, I rarely deviate from these remedies, except by giving smaller doses of jalap and cream of tartar; and occasionally using calomel in place of the blue pill, and that is not very often done. In some patients, who have recovered from the more acute symptoms for many days, and have become emaciated, with dryness of the skin; I have omitted the purgative of compound jalap, and ordered a drachm of sulphur, mixed with half an ounce of mucilage, and one ounce of cinnamon water, to be taken in the morning early; the ipecacuanha, gentian, and blue pill being given at four and nine o'clock P.M. In such cases, the sulphur is a mild aperient, it has the property of acting on the skin, and I believe one of its effects in some stages of dysentery, after inflammation is subdued, is produced by its actual contact with the ulcerations of the intestines, inducing them to heal." (P. 69.)

After suggesting some familiar local remedies for tenesmus, and an injection of cold water for the painful affection of the bladder, with sup-

pression of urine, which attends bad cases; and speaking of opium in terms which contrast strangely with the eulogies bestowed upon it by Drs. Armstrong, Cheyne, and others, whose experience of disease was confined to the British Islands; he gives the following dietetic precepts, which we think so rational, and so applicable to the dysentery of all climates, that we transfer them unmutilated to our pages.

"In all cases of acute dysentery, the greatest attention is requisite to the quantity as well as the quality of food and drink allowed; it being important to keep the colon as nearly as possible empty, while in an irritable state, and during the subsidence of inflammatory action, or the healing of ulcers. We must order the patient to be restricted to tea, barley-water, and thin sago, either of which may be given in the quantity of a coffee-cupful every six hours; and if the patient call urgently for drink in the intervals, a wine-glassful of weak infusion of chamomile flowers may be allowed every two hours: this, if used cold, is the best drink, and does not increase thirst. By attending strictly to this rule, it is probable that the food will be almost entirely absorbed in the stomach and upper portions of the small intestines. If the abstraction of blood be properly followed up, in a degree suitable to the inflammatory condition of the intestines; and the ipecacuanha, gentian, and blue pill, be given as directed; a restoration of alvine evacuations of healthy appearance, and removal of the uncomfortable sensations, take place so quickly, in most of the ordinary cases of dysentery which are treated at an early stage, that patients are with difficulty restrained from using an undue quantity and improper kind of food during the first days of convalescence, while the intestines are still weak, ready to be irritated by slight causes, and incapable of digesting any thing but the most bland food, in very moderate quantity. Errors in diet are the principal causes of tardy recovery, and of frequent relapses; therefore we must use the greatest caution, and only allow patients to resume their ordinary food very gradually, when convalescence is well advanced." (P. 73.)

Mr. Twining's views regarding both the pathology of dysentery, and the treatment it requires, are widely different, it will be observed, from the hyper-hepatic doctrines and the hyper-mercurial practice which our most popular tropical guides have hitherto but too successfully inculcated. He is candid, however, towards opinions which erred by ranking that as essential and primary which was but accidental and accessory. He does not altogether deny the affection of the liver, but reduces it to its due rank and importance.

"The usual causes of dysentery, being sudden alternations of temperature combined with an humid atmosphere, doubtless act by producing a degree of plethora and congestion of internal organs; and we can hardly doubt that the liver often partakes of this state. The most decisive means we possess, for relieving this condition of the liver, are the active depletion by bloodletting leeches, and purgatives recommended above; at the same time, that we use remedies to determine the circulation to the surface. These remedies may be sufficiently assisted by the small quantities of blue pill, or calomel, already advised, without producing salivation. Our earliest attention and most constant care, in the treatment of the acute dysentery of Bengal, must be directed to subdue the local inflammatory condition that exists. Many cases, if treated at the commencement of the disease, appear to be cured at once by bloodletting, leeches, and the tepid bath." (P. 75.)

Regarding mercury, we find none of those extreme opinions, marking an ill-balanced mind seeking to atone for one error by the commission of its opposite. It will be observed, that this mineral enters into the composition of the remedy which he employs as the great auxiliary to bloodletting in the disease. Against its abuse, however, he is a strenuous declaimer, censuring both the employment of large and repeated

doses of calomel, given with the intention of producing salivation as speedily as possible, and of doses equally large followed by drastic purgatives. "When dark-coloured stools are observed," he says, "they are ascribed to disordered secretion of bile; and the patient, if dysenteric, is sentenced to undergo the discipline of large and repeated doses of calomel and drastic purgatives daily. If the stools are pale-coloured, calomel is still held in reverence as the best corrector of the disease. The pathology on which such practice rests is incomprehensible."

He asks the very reasonable questions, why dysentery, if ascribable to a disordered state of the bile, is confined to the large intestines; and why, if black and discoloured stools arise from the same cause, the contents of the small intestines should be of different shades of yellow and orange colour; whilst those of the great bowels alone are dark-grey, dark-brown, or black? In confirmation of the opinion implied in these queries, we may remark that, in cases which have terminated fatally when the patient was under the influence of calomel, (hydrocephalus presents itself as a disease in which we have witnessed such occurrences,) we have seen, on cadaveric inspection, the great intestines thickly lined with a substance of a dark colour, consisting of thin feculent matter and intestinal mucus; whilst the contents of the small intestines, (which, by hypothesis, should be the darker,) were of a pale orange or yellow colour. This dark-coloured matter constitutes the green or olive-coloured stools so often remarked, an appearance ascribed to the influence of calomel on the liver, but which we believe to be really due to its action on the intestinal lining; and that other irritants, tartarized antimony for example, or a diseased condition spontaneously occurring, will occasion the same phenomenon.

The author admits one exception to his denunciation of the "scrupulous practice of India" in dysentery. This is when the disease is not above two or three days' duration, where the subject is robust, pyrexia considerable, and the calls to evacuate the bowels are very frequent, whilst only about half an ounce of reddish mucus is discharged; though, in such a case, besides a large bleeding, he associates with a scruple of calomel the same quantity of his favorite ipecacuanha. We cannot conceive a proceeding better calculated than this to produce an impression on an enteritic condition of considerable intensity; and we have adopted an analogous line of practice in similar cases in a climate more temperate than the Indian. Where dysentery is associated with scurvy, a disease of occasional occurrence in low and unhealthy situations in Bengal, he considers calomel, as might be supposed, peculiarly injurious. His remedies are, compound jalap-powder, ipecacuanha with extract of gentian, and a tolerably nutritious diet.

The disciples of the physiological or Broussaian school will feel surprised that Mr. Twining should, whilst the intestines are affected with an inflammatory disease, apply a stimulus to them such as compound jalap-powder, especially as he censures the employment of another stimulus,—large doses of calomel. The inconsistency may be reconciled by the fact that he has found the one stimulus injurious, the other beneficial; and that all sound therapeutics result from observation. That he has found laxatives useful, is no more than is observed in other forms of enteritic irritation, such as that connected with ulceration of the glands of Peyer, or

constituting diffused muco-enteritis, in which the reasoning *à priori* of Broussais condemns them; but the experience of the profession proves the utility of their moderate employment, however this utility may be brought about; whether by the removal of irritating matter from the surface, increased exhalation, or on some other unascertained principle.

The author pays due attention to certain local affections complicating dysentery: of these, one of the most frequent and important is inflammation of the cæcum. This, when it occurs, generally takes place about ten or fourteen days after the commencement of the dysentery; and examination with the hand easily detects, in the right iliac fossa, a rounded, doughy, and inelastic tumour, which indeed is often visible to the eye. This tumefaction, depending on interstitial deposits of coagulable lymph between the coats of the intestine, or between the cæcum and iliacus muscle, may be discriminated from intumescence in the same region, arising from hardened fæces or flatus, by processes so obvious, that it would be superfluous to mention them. He declines entering into any disquisition regarding that inflammation of the cæcum and abscess in the iliac fossa, occurring independently of dysentery, which has been described so fully by Unger, Ferrall, Dupuytren, Husson, Dance, and others, and of which so ample an account was given in our second number.* He recommends for the treatment of the form of disease observed by himself, free local bleeding, with fomentation and poultice; an open blister on the part; a combination of Plummer's pill and extract of colocynth nightly, with a dose of compound powder of jalap in the morning; very spare diet, and the recumbent posture. In omitting general bloodletting from his list of remedies, he assumes that this has been performed for the primary disease, the dysentery.

Contraction and induration of the opposite extremity of the colon, its sigmoid flexure, frequently becomes the predominant affection in the latter stage of dysentery. The induration can be felt by pressure in the left iliac region; pain exists there, which in severe cases extends to the corresponding testicle; there is pyrexia, and the alvine evacuations vary according to the extent of the disease in the intestine, and to the presence or absence of affection of its internal coat, consisting in some cases of small figured fæces alternating with bloody slime, in others of merely sanguineous mucus. The remedies are in principle the same as those for inflammation of the cæcum. Mr. Twining very properly regards this affection as totally distinct from that stricture of the sigmoid flexure unfortunately not uncommon in this country, and which is of a carcinomatous nature. There is one very important ground of distinction, that, whilst the inflammatory disease, by timely and judicious treatment, admits of cure, the scirrhus scarcely receives palliation.

Our limits compel us merely to advert to much interesting matter on ulceration and destruction of the ileo-cæcal valve, and sloughing of the mucous membrane of the intestines; but we shall pause for an instant on the author's opinion regarding that "*vexata quæstio*," the mutual influence of dysentery and hepatitis. The facts of the case he thus states: the advanced stages of abscess of the liver are almost always attended with dysentery, and ulceration of the mucous membrane of the great

* See British and Foreign Medical Review. No. 2, p. 501.

intestines is found on the dissection of the subjects of these diseases; and, inversely, acute disease of the great intestines occasionally excites hepatic irritation, with tendency to suppuration; and sometimes deep-seated or central abscess of the liver takes place, in spite of the most decisive and accurate treatment.

Our author attempts an explanation of the latter fact only.

“This dangerous affection of the liver seems to arise from the abrupt cessation of copious secretions from the mucous membrane of the intestines, while some degree of the inflammatory condition is unsubdued; the decrease of discharge from the bowels giving rise to relative plethora of the mesenteric vessels, and consequent hepatic congestion and irritation. This consecutive hepatic affection is dangerous, because it takes place when the practitioner is generally relaxing in the diligence of his examinations, and remitting his remedies; as well as allowing more food, under the impression that his patient is cured.” (Vol. I. p. 167-8.)

This partial explanation appears to us, and we express the sentiment with great respect for the memory of the writer, very unsatisfactory. So far from there being copious secretions in dysentery, the secretions are scanty, if we are to judge (and it is the sole means we possess of judging,) by the quantity expelled; whilst, estimating by the same test, secretion becomes more abundant as the patient approaches convalescence; the very period, says our author, when the hepatic inflammation arises. It should be remarked, besides, that one portion of the phenomena only is attempted to be explained; this hypothesis, and we can give it no more flattering appellation, leaving us in the dark as to the causation when the order is reversed,—the hepatic preceding the enteritic affection. We have no better explanation to offer, nor are we called upon to furnish one; but we would venture to suggest that, in whatsoever order the phenomena occur, whether from below upwards or inversely, the condition of the veins from the portæ to the branches of the mesenteric vessels should be diligently scrutinized.*

We cannot omit to notice the practice recommended by our author for that very intractable disease, chronic dysentery. So many modes of treatment have been found unavailing, that we are glad to notice one more for trial, and one which seems judicious.

“In the dysentery which is really chronic, there is seldom occasion for general bloodletting, as the system is commonly in a state quite the reverse of plethoric; but leeches are frequently of much service; and whenever indurations can be felt, unattended by morbid sensibility on pressure, or by any pyrexia, blisters are generally very important remedies. It is generally proper to begin the medical treatment of chronic dysentery with a moderate dose of compound powder of jalap, or of castor oil, for the purpose of carrying off the refuse of indigested food, or the remains of morbid secretions; after which, the patient should take ipecacuanha, extract of gentian, and blue pill, four grains each, every night; a drachm or half a drachm of sulphur every morning, mixed with cinnamon water, by means of thick mucilage or of powdered gum arabic; and a wine-glassful of the following mixture daily at noon.

* The author subsequently, after remarking that M. Gendrin's *Histoire Anatomique des Inflammations* affords instances of pus in the veins adjacent to ulcers of the intestines, asks this question: “May we consider the fact of pus being found in the veins of the intestines, as one link in the chain of events in those cases where abscess of the liver takes place at a late stage of bad cases of dysentery, attended by extensive ulceration of the intestines?”—Vide note, p. 232 of *Illustrations*.

R. Infus. Ipecacuanhæ ʒi.

— Gentian. Comp.

Misturæ Camphoræ aa ʒv.

Tinct. Cardamom. Comp. ʒii.—misce.

"If there be any degree of morbid heat, with dryness of the skin, a mild purgative each morning, of compound powder of jalap, will be found most effectual; but if there be a dry and shrivelled skin, with coldness, the daily aperient of sulphur will usually answer best." (P. 179.)

He advises that the diet should be almost as limited in quantity as that directed for the acute disease, and that it should consist of sago, gruel, or other farinaceous food, with a little milk morning and evening, and one ounce of wine with the mid-day meal.

We refer the reader to the chapter on Diarrhœa for much interesting matter, but pass over it ourselves, in order that we may dwell longer on a subject very important to Indian practitioners, and requiring from those of Britain more correct appreciation than it uniformly obtains, *Disease of the Liver*.

It is difficult to convey a view at once clear and condensed of the author's elaborate description of the pathological appearances observed in the liver and its appendages; but the following enumeration of the heads to which the morbid conditions are referred will give the reader some general idea of the details:

1. Morbid changes in the gall-bladder; α , increased in size and distended with bile; β , decreased in size, false membrane covering it, and sometimes agglutinating it to neighbouring parts.
2. Enlargement of the liver, its colour dark, texture soft, bleeding freely when incised.
3. Abscesses of the liver, which may be, α , a large quantity of matter in a cavity, the contiguous parts not being much diseased, occurring in the course of fevers, acute dysentery, and in drunkards (acute central abscess); β , a small quantity of matter; the disorganization great; the parts on dissection being sloughy, like the advanced stage of a large carbuncle; occurring chiefly in the scorbutic; γ , a circumscribed abscess, the size of a small orange, in a cavity bounded by much coagulable lymph; δ , numerous small abscesses, the size of a filbert, dispersed through the substance of the liver.
4. Adhesion of the liver to the diaphragm, colon, or stomach, with more or less thickening of the peritoneal coat.
5. Black discoloration of a part of the liver, usually with some softening of its structure.
6. Tumours (probably glandular) varying from the size of a grain of barley to that of a bean, situated in the capsule of Glisson, causing pressure on the ducts, sometimes even their obliteration.
7. Pale, serous enlargement of the liver, the surface of the organ distinctly marked by the pressure of the cartilages of the ribs; occurring in chronic, leucophlegmatic disorders.
8. Liver of a pale slate-colour, with induration, and toughness of its texture.
9. Enlargement with paleness of colour, the texture soft and oily.
10. Induration and enlargement, the organ resembling in colour and texture boiled cow's udder.
11. Puckered depressions like cicatrices on the convex surface of the liver, with some induration from effusion of lymph beneath.
12. Biliary concretions in the gall-bladder.
13. Concretions like yellow soap, extending along the biliary canals; left lobe most frequently affected.
14. Enlargement (relaxation?) of the hepatic duct.
- 15.

Obliteration of the biliary ducts, observed only when the changes described in 9 and 10 had taken place. 16. Tubercles. 17. Hydatids.

There is one pathological condition of this organ unnoticed by the author, which has fallen under our observation in this country—diffused suppuration. The pus is not encysted, but constitutes an interstitial deposit throughout the structure of the liver, which is softened and broken down to the consistence of spleen, or even looser. The matter can be raised in abundance on a scalpel. Chronic inflammation with jaundice and febrile paroxysms, irregular in their period of recurrence, but each paroxysm resembling in character a fit of ague, has been the form of disease preceding this condition.

Regarding acute hepatitis, we are informed that its most unequivocal symptoms, and which are seldom deceptive, are a fixed pain in the region of the liver, which is not removed by purgatives, but is increased by pressure or by a full inspiration, a sense of oppression and fulness about the lower part of the chest, and across the epigastrium, at the same time that there is palpable enlargement of the liver.

There are two forms of the hepatic affection differing decidedly from each other, and neither of them quite identical with acute and superficial inflammation of the liver. These are inflammatory congestion with tendency to central abscess, and acute hepatitis with inflammation of the capsule of Glisson and adjacent parts.

The symptoms of the former affection are thus described:

“The enlargement of the liver, with tension at the epigastrium and across the hypochondria, is more evident in the early stages of this affection than in the acute peritoneal inflammation; there is also more oppression at the chest, attended with impeded respiration: but there is less of acute pain on taking a full inspiration, and less morbid sensibility on pressing over the liver, than in the acute superficial inflammation. One very common symptom of the incipient stage of this tendency to central abscess of the right lobe of the liver, is, a much greater degree of tension of the right rectus abdominis muscle than of the left; the muscle on the right side resisting pressure by a quick involuntary action, while the left rectus is lax, and other parts of the patient's belly are comparatively soft and elastic. I consider this one of the most undeviating symptoms of congestion, with incipient interstitial deposit into the texture of the liver, which commonly goes on to deep-seated abscess, unaccompanied by urgent symptoms of pain, or pyrexia. I have seen the left rectus muscle alone affected in this way, in patients who have afterwards died of abscess in the left lobe only. This symptom is of the more importance, as it takes place at an early period of the disease, when we can almost always effect a cure by due persistence in a proper system of treatment.” (P. 243.)

The following is the account of the second form,—acute hepatitis with inflammation of the capsule of Glisson.

“The patients complain of pain at a circumscribed space about four inches above the navel, and to the right, on a line drawn from the umbilicus to the point of the right shoulder; and the disease is attended by the following circumstances. The attack sometimes commences suddenly after eating, and in that case the food is usually vomited, whereby a transient relief is experienced; the respite is but short, for the pain soon returns, and pressure over the part cannot be borne; a full inspiration increases the pain, and the patient is unable to stand erect, or to lie straight in bed; he rests with the body bent forward, and inclining to the right side; there is great anxiety, and the nights are passed without sleep; there is usually a sense of weariness and pain in the loins; tumefaction of the liver is seldom evident. In severe cases, the pain shoots back towards the lower angle of the scapula or up

towards the shoulder; and is of the acute kind that is usually spoken of as a stitch or spasm, which prevents coughing or sighing. The bowels are usually costive at first, the urine is in general high-coloured, and jaundice sometimes takes place: there is a dry tongue, thirst, headach, and a frequent pulse, but not generally very high fever corresponding with the acute pain. In the latter stages of the disease, a distressing purging of black watery fluid takes place, and sometimes much blood is passed by stool. Severe cases, if not arrested by a very decisive and persevering treatment, will run their course in twenty or twenty-five days: during the last six or eight days of which time, the profuse discharge from the bowels usually attracts most attention; and the patient dies from irritative fever, produced by inflammation and congestion, which affect not only the liver, but the capsule of Glisson; and in some measure extend to the cellular structure round the duodenum, and at the root of the mesentery. It is not common for abscess in the liver to form, after the course of disease above described; though that is sometimes the case." (P. 244.)

The disease just described, and especially the form of it subsequently mentioned, differing from this only in being less acute in its symptoms and less rapid in its progress, and affections of intermediate degrees of intensity between the extremely acute and the chronic, constitute the most common type of hepatitis in this country. During any summer and autumn at once warm and moist, cases agreeing in all essential particulars with Mr. Twining's description fall under our observation in England. We have had other opportunities of testing this writer's descriptive skill; but familiarity with the diseases of this country alone would enable us to bear testimony to its accuracy.

The subject of Causes is handled with good sense and brevity. Those most efficient are stated to be a warm and humid atmosphere during the day, followed by cold nights. He admits that excess of wine and spirituous liquors, as well as of stimulating food, keeps many in India in an almost perpetual state of proclivity to inflammation and suppuration of the liver; yet he thinks habitual intemperance does not produce hepatitis so often as might be expected, but regards its influence on the result of the disease as very pernicious. The belief is expressed that hepatic abscess would less frequently follow delirium tremens, if this complaint, "when combined with febrile and inflammatory symptoms, were more commonly treated by antiphlogistic means." We concur in this sentiment, and earnestly recommend our professional brethren not to administer opium and stimulating remedies in a case merely because it would be not inappropriately designated "delirium tremens;" but to take the general condition of the system as their guide in its treatment; being convinced that under this term, and bearing external marks extremely similar, diseases of an essentially different nature are comprehended.

With Mr. Twining's simple and intelligible statement of causes, the ambitious enumeration of Mr. Conwell, diffused with characteristic proximity and in endless divisions over twenty-seven pages of his work, forms a striking contrast. This is, indeed, a singular compound of facts and vague hypothesis, all propounded with an aphorismal solemnity which invests the most baseless speculation with the air of a self-evident and valuable proposition. We can gather from the introduction to this section, that he considers the form and distribution of the blood-vessels of the liver; the great caliber of the large vessels; the absence of valves; the abundance of capillaries; the proximity of these capillaries to the parent trunks, and what he terms "the triple capillary connexion interposed

between the great sanguineous vessels, of which the centre is placed in the acini;" as tending to the production of congestion, or inflammation of the organ, and influencing either of these states to terminate in abscess.

These specialities of structure existing in every clime, we should have expected that inflammation, and even abscess of the liver, should be everywhere frequent diseases; but in our own country we find hepatitis rare in comparison of certain other phlogoses, pneumonia for example; and abscess of the liver *absolutely* rare. We shall leave Mr. Conwell to reconcile these facts with the peculiar proclivity to these affections with which the liver is endowed by its very structure. With regard to mere congestion giving rise to abscess, the enormous extent to which the former affection of the liver exists in certain diseases of the heart, without ever issuing in the formation of matter, remains likewise for his consideration. As to other causes, when we have disentangled his opinions from the speculative matters with which they are overlaid, we find them in accordance with those of Mr. Twining, excepting that he appears to attach more importance than this gentleman to intemperance as the direct source of hepatitis.

The treatment of the disease recommended by Mr. Twining bears the stamp of his practical good sense. He does not regard hepatitis as something special and peculiar, beyond the pale of those remedies which the experience of centuries has sanctioned in the treatment of inflammation, and refer us to mercury solely or principally for its cure; but insists strenuously on antiphlogistic measures, spare diet, and repose. An active purgative at the commencement, and general bloodletting repeated every six hours till the pain of the side and fulness of the epigastrium are relieved, form the basis of his treatment; and subsequently leeches are applied to the epigastrium every forenoon, beginning with twenty, and reducing the number to ten or six as the patient's strength becomes subdued, and the progressive subsidence of the disease may permit. After the purgative of the first day, it is advisable, he says, to give nightly ten grains of calomel with six of compound extract of colocynth, and four of extract of hyoscyamus, followed each morning by as much compound powder of jalap, or infusion of senna with salts, as shall produce four free stools in twenty-four hours. He is fully aware that it is one thing to relieve the more urgent symptoms of an inflammation, and another to cure it; he is therefore strenuous that the strict repose and the extremely abstemious diet, enjoined at the commencement of the disease, should not be relaxed on account of a mere remission of distress. If there is reduction of the patient's strength, tumefaction of the liver still remaining, his remedies are an open blister to the epigastrium, round the edge of which six or four leeches are daily applied; friction of the side every day, with half a drachm of camphorated mercurial ointment, till there is a commencement of salivation; and one or two doses of calomel or blue pill at intervals, to keep up the moderate mercurial action.

We cannot discover, in the forty-seven pages dedicated by Mr. Conwell to "a physiological review of the principal remedies used in the treatment of hepatic diseases," any that we are tempted to add to the practical precepts of Mr. Twining. We find here the same bewildering intermixture of vague hypothesis with ascertained facts which we have already had occasion to censure in other portions of this work. The

remedies are arranged under eighteen heads, and the *modus agendi* of each, even the most familiar, such as bloodletting, is descanted upon as if it were perfectly new to the reader, and elementary works on materia medica and practice of medicine were not in existence. Something of this kind might be excused regarding croton-oil, which Mr. Conwell claims the credit of having first introduced into European practice; but even on this head we think he has somewhat abused his privilege. Some experiments performed with the oil by Magendie are reprinted from a work published by the author in Paris in 1823. They are not devoid of interest, and shew that this medicine acts by being absorbed and applied to the nervous system, and not directly on the muscular coat of the intestines.

There is a valuable paper by Mr. Geddes in the sixth volume of the Transactions on the subject of hepatic abscess. This is one of great interest in India, as is manifest from the following abstract of cases of hepatitis and liver abscess observed by Mr. Geddes in the Madras European regiment during the period of three years and ten months. Two hundred and twenty-eight cases were admitted under the denomination of hepatitis. In sixteen of these, abscess formed, and proved fatal. Besides which, twelve other cases of hepatic abscess terminated fatally in the same period, the patients having been admitted into hospital for the treatment of other diseases, principally fever and alvine fluxes. The whole number of deaths in the regiment during the period was 108, of which nineteen were owing to cholera: consequently more than one-fourth of the gross mortality was due to liver-abscess; and, if we deduct the cases of cholera, regarding them in some measure accidental, nearly one-third of the deaths arose from this cause.

Mr. Twining regards softening of the liver with sero-purulent infiltration as the preliminary or incipient stage of abscess; and this he has had an opportunity of observing in patients who have died from fever or dysentery, or from wounds and accidents during the progress of hepatic disease. This condition we have already adverted to as one which we have seen of itself fatal in this country. Inflammation and vascular engorgement he considers the precursors of this interstitial deposit.

The symptoms of abscess we cannot give more succinctly than in Mr. Twining's own words.

"In most cases the usual phenomena of hepatitis continue after suppuration has commenced, and frequently some other symptoms are superadded to those which previously existed. Rigor is not a general attendant on the formation of abscess in the liver, and that symptom was not observed in the majority of the cases which I have seen. When an extensive collection of matter has taken place in the liver, the pulse almost always rises above one hundred, and becomes softer and more readily accelerated by any exertion, or by change of posture from the recumbent to the erect position. In many patients, frequent cold perspirations are observed, attended with anxiety, debility, and a sunk countenance; in other cases profuse sweating occurs at night. Sometimes, in emaciated subjects, the pyrexia assumes the character usually observed in pulmonary hectic. During the rainy season in the low and damp stations of Bengal, proper remittent fever occasionally occurs in patients who are suffering from hepatitis, and if the liver be much enlarged, and not speedily reduced by active treatment, these cases are very apt to terminate in abscess. Mercury employed in the treatment of hepatitis does not very often cause pytalism after suppuration has taken place; but if mercury be administered in such quantity as to produce salivation at an early stage of the disease, and sufficient

depletion by bloodletting be neglected, the progress of inflammation, and the formation of abscess in the liver, are not certain of being arrested, and the existence of free pytalism does not afford sufficient ground for assuring a patient that abscess of the liver cannot supervene. These are the more common constitutional symptoms of hepatic abscess; the local indications of existing suppuration are very often an increased tumefaction of the liver, the patient suffers more from oppression at the chest and anxiety; and in those cases where the liver is so large as to protrude beyond the margins of the ribs, and the abscess is seated anteriorly, a more or less circumscribed projection takes place as the disease advances. If the abscess be situated at the concave surface near the stomach, vomiting often occurs; but this symptom is not a very unfrequent attendant on abscess of the liver seated remotely from the stomach." (P. 295.)

Central abscess often forms without so much pain as to excite the alarm of the patient, and these cases, as the author justly observes, prove the skill of the practitioner more than the sudden attacks of acute inflammation with severe pain. The following symptoms are mentioned as the indications of this obscure form of affection:

"The continuance of slow fever, with protracted diarrhœa, and tension of the recti-abdominis muscles, should make us very vigilant in our observations and careful in the treatment which we order, as we know that liver-abscess frequently runs its course in Bengal without active pyrexia, and with but little pain in the part affected; and sometimes without any palpable enlargement of the liver. Those persons in whom abscess in the liver proceeds in this way, lose their health in a very gradual manner, becoming emaciated, and having returns of fever for a few days, once in two or three weeks; they then suffer from slight pyrexia almost every day, attended with more or less of diarrhœa, and followed after some weeks by hectic fever and quick pulse. The muscles of the abdomen, in these cases, are usually somewhat tense, especially the right rectus; the belly is frequently not tumid, and a careful examination detects only a trivial enlargement of the liver." (P. 297.)

We have seen in this country cases of abscess of the liver bearing a general agreement with the foregoing description. In certain cases there was total absence of pain in the hepatic region; and there were exacerbations of a constantly existing degree of pyrexia, recurring at intervals varying from a week to a fortnight, or longer. These exacerbations were, however, (in most of the cases we have observed,) ushered in by a strong rigor, which, conjointly with the general course of the subsequent phenomena, imparted to them much of the character of an ordinary fit of ague. If jaundice formed part of the symptoms of the disease, the yellowness became more intense during the exacerbation, and remained so for a day or two. Mr. Geddes, in the excellent paper we have already quoted, mentions rigors, investing the pyrexia with the character of a paroxysmal fever, among the symptoms of the disease. From the same authority we derive ample confirmation of Mr. Twining's statement regarding the extreme uncertainty and obscurity of the indications of hepatic abscess. It appears that, of the twenty-eight cases which he reports, pain existed in only thirteen, dysentery in ten, and pyrexia in but five cases.

The last-mentioned circumstance is so startling, that, but for the strong evidence of accuracy furnished by the general tenor of his very elaborate article, we might have suspected some error. He informs us, moreover, that, of the twenty-eight cases, sixteen only were designated liver or hepatic disease; five being considered dysentery; two continued, and one intermittent, fever; two abdominal inflammation; one chronic diarrhœa,

and one debility. Whilst he regards pain in the region of the liver or its vicinity, or in the right shoulder; dysentery, or diarrhœa; fever, or fever and pain conjointly, as the strongest diagnostic marks of this affection, he seems to consider pain and dysentery as mutually excluding each other; remarking that, where the dysenteric symptoms are severe, there is little pain; and inversely, where the pain is urgent, there is little affection of the bowels. We see in these statements of Mr. Geddes obvious reasons for concluding that the existence of hepatic abscess is not to be inferred from this or that pathognomic sign; but, in a great majority of instances, only to be strongly suspected from an assemblage of circumstances and symptoms.

Mr. Twining, aware how hopeless a case is presented by abscess of the liver when fully formed, is urgent that no pains should be spared to obviate so melancholy a consummation. Impressed with a belief that the interstitial deposit to which we have more than once adverted, and which he regards as the preliminary stage of abscess, admits of absorption; and considering the chances of recovery from such a process as infinitely greater than from the bursting of an abscess even in the most favorable direction, he advises, if the patient's strength is unsubdued, and any inflammatory symptoms remain, that we should, notwithstanding any indications of effusion, persevere in the antiphlogistic measures recommended for the primary affection. These reasonable views of the author receive confirmation from several of the cases detailed by him.

Under circumstances differing from the foregoing, when the abscess is fully formed, the patient emaciated and weak, and suffering from hectic and colliquative sweats, we are recommended to support his strength with mild and nutritious diet, and to endeavour to inspire cheerfulness of mind. Many patients die before the abscess bursts. In other cases it discharges itself either into some part of the intestinal canal, or, through the diaphragm and lower part of the lung, into the bronchial tubes; or externally through the parietes of the abdomen, or at the lower part of the side of the chest. A proportion, but only a small proportion, of such cases recover under a careful and discriminating medical treatment. This Mr. Twining very properly considers as consisting in a mild diet, given in sufficient quantity to prevent the patient's strength from sinking; whilst, on the one hand, any endeavours to produce plethora, and, on the other, debilitating measures, such as purgatives, mercurials, and leeches, are avoided. Where fluctuation can be ascertained, or where there is an evident pointing externally, abscesses should be opened, he thinks, more frequently and at an earlier period than is now practised. We regret to add, that he witnessed but one case of recovery. In this, the incision—and this method he prefers to caustic,—was performed at the epigastrium.

No writer conveys more distinct ideas than Mr. Twining on a subject regarding which the public has borne much written and, we fear, not a little of practised quackery,—chronic diseases of the liver. The majority of these, he thinks, differ from the acute only in degree and duration, and require for their treatment the same measures, modified, in their force and the period during which they are applied, by the circumstances of the complaint. Illustrative cases are given. The examples of chronic inflammation of Glisson's capsule, the gall-bladder and adjacent part of

the liver, with disorder of the duodenum, will be read with much interest. The seat of the tumefaction and pain, just below the centre of a line drawn from the umbilicus to the right nipple; the increase of this pain after taking food; the slow fever and emaciation; the diarrhœa, with scanty and dark-coloured evacuations, and the result of the practice employed, local bleeding, low diet, and moderate mercurial purgatives, confirm the accuracy of the view taken by the author, of these affections.

Two forms of chronic hepatic disease, besides the inflammatory, are described. 1st. The red disorganization, with slight enlargement, induration and irregularity of the surface of the liver. This morbid condition arises from hypertrophy of the red substance of the liver, and some obstruction to the venous circulation. Red blood of an unhealthy description abounds in these patients. They suffer much from various constitutional ailments, and are distressed by disorders of the digestive organs. They generally die from extreme emaciation, which takes place rather suddenly, and which is attended with a troublesome cough. 2d. The pale degeneration of the liver, which is attended with some enlargement. It depends on hypertrophy of the yellowish-white substance of the organ, and there is more or less induration. It occurs most frequently in persons of pale complexion, who have been long resident in India; the patients are bloated, fat, and dropsical; they are sometimes slightly jaundiced.

On the subject of *Jaundice*, we find in Mr. Twining's work much interesting matter, pathological and therapeutical. The pain, which generally exists in this disease, and which is increased by pressure, is so situated with reference to a line drawn from the umbilicus to the right nipple as might lead to a belief that inflammation of the portion of the liver adjacent to Glisson's capsule was the origin of the affection. Reflecting on the absence of jaundice in many cases of extensive inflammation of the liver, and even suppuration involving large portions of the organ, the author was induced to suspect an error in his pathological views, and to pursue the investigation. This led to his discovering, besides infiltration of coagulable lymph into the cellular tissue of the capsule of Glisson, an enlargement of two lymphatic glands situated within this capsule, one adjoining the cystic duct at a little distance from its origin, the other lying at the side of the ductus communis. The former gland, if enlarged, pressing only on the cystic duct, it cannot be supposed that jaundice could arise from its tumefaction. Not only pressure of the common duct, but its actual obliteration, has been observed from swelling and induration of the other gland; and we need scarcely remark that, in the former circumstance, if to any considerable extent, and unequivocally in the latter, we have an ample efficient cause of jaundice. These important views of Mr. Twining are confirmed by reference to the normal condition and situation of these glands; by the pathological researches of Mr. A. K. Lindesey and Mr. D. Stewart, in the seventh volume of the Calcutta Transactions; and by a case published in the *Lancet* for February 8th, 1834, by Mr. G. Jones. The high authority of Andral is also in favour of the operation of this mechanical cause of jaundice. He says, speaking of the morbid phenomena produced by enlargement of the lymphatic ganglia within the abdomen, "when those diseased ganglia are

accumulated round the hepatic duct, they compress its parietes, the bile no longer flows into the duodenum, and jaundice ensues.”*

It is but justice to Mr. Twining to mention that his discovery of the diseased condition of these glands preceded his acquaintance with M. Andral's work; and was anterior to the observations of the same fact in other quarters.

Where the liver is enlarged, and the general symptoms of hepatitis are associated with jaundice, the bile at the same time passing into the intestine, there can be no doubt of the propriety of employing, as already advised for the primary disease, bleeding, general and local, calomel, and active purgatives. When no enlargement of the liver exists, but there is circumscribed pain in the region of the gall-bladder and ducts coming on gradually, and white or clay-coloured stools, the antiphlogistic part of the treatment is adopted; but it is suggested that mercury should be entirely omitted. Agreeing with the author in the expediency of venesection, leeches, purgatives, and the warm bath, as most efficient remedies of jaundice, whether it occur in India or elsewhere, we beg to dissent from the negative precept regarding mercury. He seems to be influenced in his opinion by the remark of Dr. Cheyne, that, in large establishments for the cure of venereal disease, jaundice often appears during courses of mercury. Admitting the correctness of the remark, and stating the corroborating circumstance that, under severe ptyalism, the alvine discharges are almost always clay-coloured or white, we must still be allowed to regard the *moderate* employment of mercury as an important auxiliary in jaundice to the depletory means recommended. The biliary duct is obstructed, says Mr. Twining, and to give mercury with a view of exciting the secretion of bile would be as unreasonable as to administer diuretics to a man with a distended bladder, when we knew he had impervious stricture of the urethra. We reply that we would not exhibit mercury with the view of increasing biliary secretion, but with that of aiding to surmount the inflammation on which the author, equally with ourselves, believes the obstruction to the flow of bile into the intestine to depend. Because mercury has been grossly abused in India and other parts of the world, we cannot see the reasonableness of foregoing the benefit derivable from its use in inflammation. On referring to Mr. Conwell, we find that, whilst he makes no mention of bleeding, general or local, he advises the prudent employment of mercurial and other purgatives, diluents, sudorifics, and the warm bath. He appears to us, however, by omitting the most important of remedial measures, to be securing to his patients a tedious disease and a protracted convalescence; but his very vague and speculative views of the pathology of the disease are not calculated to suggest a very decisive practice.

The chapter in the *Clinical Illustrations*, of which diseases of the Spleen are the subject, is not inferior in interest to any in that valuable work. Splenitis, or acute inflammation of the peritoneal coat of the organ, the author tells us, is a rare disease in any country; an opinion in which we concur. But there are diseases of the spleen, consisting principally in its enlargement, softening, and vascular engorgement, which are frequent in India and elsewhere, and very important with

* Andral's *Pathological Anatomy*, by Drs. Townsend and West. Vol. ii., p. 457.

reference to the constitutional condition in which they originate, or with which at least they are associated. This condition is marked by the early accession of general debility, paleness, and a deficiency of blood in the capillary vessels, most remarkable in the pale and bloodless aspect of the conjunctiva, hectic blueness or pearl-colour of the sclerotica, and chlorotic discoloration of the face, tongue, and gums.

The symptoms of the disease vary according to age and sex, though all seem mainly referrible to anæmia and extreme debility. Children display, as might be supposed, less power of resistance under it than adults, and, when attacked, if proper medical treatment be omitted, they speedily fall into a state of deplorable marasmus. They become languid and weakly, and their breath and the exhalations from their bodies have a nauseous and sickly odour. Females under the same condition, besides the general indications of anæmia and debility, generally suffer from amenorrhœa. In the few cases in which menstruation is not obstructed in such subjects, there is a favorable prospect of recovery.

Various indications of an attenuated state of the blood exist. It coagulates imperfectly, or the cruor is black and soft, and its surface does not assume, on exposure to the air, the usual florid appearance. There is no buffy coat, unless pyrexia or acute pain of the left side be present. Trifling causes give rise to ulcers, which, from a deficiency of constitutional energy, show a disposition to spread. This connexion between disease of the spleen and the ulcerative process was long ago pointed out by Morgagni, and even by Celsus;* but we feel not the less obliged to Mr. Twining for recalling our attention to it. There is a tendency to hemorrhage from slight injuries, and profuse discharges of blood occasionally take place from the stomach, which, the author remarks, may flow from vessels directly communicating with the splenic vein; as, when the spleen is swollen, great relief is thereby afforded to it. It may be worth remarking, that the fact of the detumescence of the organ after such sanguineous discharges, and the opinion that they proceed from vessels directly communicating with those of the spleen, are noticed by the authority we have just quoted and several of the older writers.†

Patients labouring under this disease are affected with a short and imperfect respiration, their appearance evincing that decarbonization of the blood is inefficiently accomplished; and any attempt to take active exercise excites panting and distress in the chest. The appetite is impaired, the digestion difficult, and the food appears to be imperfectly assimilated; in a few instances there is morbid craving for nourishment. There is despondency and depression of spirits, inactivity of body, and torpor of mind, with great muscular debility; and this latter symptom is remarkable, although the patients be not much emaciated. The disease, when fatal, is so through the intervention of dysentery or ascites.

Intermittent and remittent fevers give rise to many of the cases of tumefaction of the spleen which occur in Bengal; this organ being very obnoxious, as is familiarly known, to the influence of these febrile affections, as M. Louis has shown it to be to that of the typhus of Europe. But, independently of any marked causation of this kind, its enlargement may

* Morgagni, lib. iii. Epist. 36, cap. 17.—“*Ulcera aut omnino non sanescunt, aut certé cicatricem vix recipiunt.*” Celsus, lib. iv. cap. ix.

† Morgagni, lib. iii. Epist. 36. cap. 12.

arise as an idiopathic disease in children, and persons of a delicate and feeble constitution, under the combined influence of a damp climate, variable temperature, deficient exercise, unsuitable clothing, and insufficient nourishment. The depressing passions constitute, in some persons, a direct or co-operating cause of the affection.

After remarking, that the assemblage of constitutional symptoms described, and to which he gives the very appropriate name of *splenic cachexia*, may exist where neither enlargement nor morbid sensibility of the organ is very palpable, the author adds, that the disorders most closely allied to it are "chlorosis, scorbutus, and some species of anæmia." We certainly consider the analogy to chlorosis presented by certain degrees of this disease as very striking indeed, and participate in the surprise expressed by the author that it has not been generally noticed. Besides the indications of an anæmious condition which in chlorosis are so manifest, the fixed pain in the lower part of the left side, which is uniformly complained of, we have in some cases traced, by examination, to an enlargement of the spleen. The degree of swelling required to protrude the organ beyond the margin of the ribs being very considerable, this physical sign cannot, in the majority of instances, be obtained; but the seat of the pain, and reasoning by exclusion, lead to the belief that it arises from the spleen. The argument to be drawn from the successful application of an identical treatment to both diseases is very powerful.

The treatment recommended by Mr. Twining for vascular engorgement of the spleen consists in the administration of purgatives, combined with bitters and the sulphate of iron. The formula usually prescribed by him contains jalap, rhubarb, calumba, ginger, supertartrate of potash, and sulphate of iron. The close analogy of these with the remedies ordinarily employed for chlorosis in this country, aloetic purgatives and iron, will at once strike the reader. The coincidence with the remedies recommended by Celsus for spleen-disease, is likewise very curious: "Potui sero jejuno dari solet absinthium incoctum; et post cibum aqua à ferrario fabro in quâ candens ferrum subinde extinctum sit; hæc enim vel præcipué lienem coerceset.*" The idea intended to be conveyed by the words of this writer distinguished by italics appears to influence the practice of the natives of India of the present day, whose remedies are, in substance, the same as those already mentioned. They think that the application of so strong an astringent as sulphate of iron to the stomach, in the immediate vicinity of the spleen, tends to contract the latter organ; for, when this medicine is administered, the patient is directed to lie on the left side, that it may flow to the part of the stomach in contact with the spleen. Mr. Twining states, that, in some young subjects, placed under his care in a very advanced state of the malady, who fell victims to spleen-disease, and to whom he had given sulphate of iron in comparatively large doses, he found the stomach quite white and exceedingly contracted, "more resembling a man's thumb than a young child's stomach."

In certain obstinate and tedious cases, the author resorts to the remedies of the natives, and speaks favorably of their effects. Besides the internal medicines, consisting of purgatives, bitters, stimulants, and some preparation of iron, or the sulphate of copper, they introduce

* Lib. iv. cap. 9.

needles into the swollen organ, or apply the actual cautery to the integument corresponding to it. Of the beneficial effect of the former proceeding, the author speaks from his own experience; and of that of the latter, from the cures he has seen effected by it on Hindoos by native practitioners who had employed it. Not the least interesting portions of the work are such notices of native practices with which it is interspersed, strikingly resembling, be it remarked, those of the Greek, Roman, and Arabian physicians; from which last source they are probably directly derived.

A long section of Mr. Twining's work is dedicated to the consideration of the Effects of Mercury on enlarged Spleen. From the predominant anæmia and asthenia with which such enlargement is associated, most practitioners would augur unfavorably of the employment of so debilitating an agent as mercury; and the experience of the author justifies such apprehensions. After detailing many valuable cases, and bestowing much sensible and candid criticism on the opinions and practice of many writers,—Indian, British, and foreign,—he arrives at the conclusion that we should not give mercury where enlargement of the spleen exists, or the constitutional symptoms of splenic cachexia are strongly marked.

A chapter of nearly two hundred pages is dedicated by Mr. Twining to *Cholera*. We need not say that it is sensibly written, but, having no claim to novelty of opinion or practice, (the only qualities which can give interest to a treatise on this subject in England,) we shall take the liberty of passing it over without further notice.

The subject of *Fever* occupies, as might be supposed, a large space in the volumes before us. In some general remarks, Mr. Twining argues against the doctrine which attributes all fevers to local inflammation. His principal argument is the same as one which M. Louis has employed, and is derived from the early stage of fever, when there exist abundant indications of constitutional affection, but none whatsoever of local inflammation. Fully convinced as we are of the perfect independence of the state of fever, we yet feel some doubt regarding the force of this argument; conceiving that we have observed, before the occurrence of decided phlogosis, a considerable degree of indisposition preceding (if the expression be allowable,) the localizing of the disease. Whatever may be our doubt of the argument, we feel none, however, of the doctrine it is adduced to support; and we are glad to observe able men in all quarters of the world stepping forward to advocate this truth, relating, as it does, to a question of practical pathology, not one of idle speculation.

The division of fevers in the Clinical Illustrations is very simple,—viz. into intermittent; the common continued fever of the hot season; the remittent fever of the rains; and the insidious congestive fever of the cold season. The yellow fever is hardly to be accounted an endemic of Bengal, although every year patients are met with in whom a yellow suffusion of the skin occurs in fevers of considerable severity. From Mr. Conwell's statement, it appears, however, that in the Madras presidency, particularly at Penang, yellow fever (to which he gives the name of *congestive nervo-bilious fever*;) is a frequent disease. To prove its identity with the disease of the western hemisphere, he quotes nearly forty pages from the writings of Hillary, Hunter, Gregory, Chalmers,

Chisholm, Rouppe, &c.; and, though we admit that he has proved his point, we think he might have compressed his evidence into smaller compass.

The frequency and obstinacy of the visceral complications with which intermittents are associated in Bengal, constitute their most important characteristic. These complications may exist in the meninges or the brain itself; in the liver; in the spleen; in the mesenteric glands and cellular structure at the root of the mesocolon and mesentery; and in the lungs. Though not uniformly existing early in the disease, they form in the course of it; and that practitioner will be most successful in his treatment who displays the quickest perception in detecting their existence, and the greatest skill in removing them. The prevalence of these visceral complications renders the intermittents of Bengal less amenable to quinine and other antiperiodic remedies, than those of some other climates. The following is Mr. Twining's plan of treatment:—He purges the patients freely at the commencement of the disease, administering his purgatives at the conclusion of the hot stage. Should the different stages of the paroxysm be severe, and attended with distressing symptoms affecting either the head, chest, or abdomen, he strongly advocates the necessity of having recourse to venesection, according to the plan of Dr. Mackintosh, noticed in our last Number. Mr. Twining recommends that the medical man should be near his patient when the cold stage comes on, in order that he may be prepared to draw blood, from a large orifice, at the commencement of the rigor, or when coldness and shivering are completely established. The quantity drawn must be regulated by the effect on the rigor, and in some degree by the size and condition of the patient as to plethora; but twenty ounces are considered the greatest amount to be taken from an European, and twelve from a native. The blood is to be drawn from the patient in a recumbent posture; he is to lie quiet for an hour after the bleeding; he should take a little warm liquid, such as tea, and ought not to be too much covered with bedclothes. If these means be adopted, there will seldom be either a hot or a sweating stage; and, if purging have been freely employed, there will probably not be a return of the paroxysm. Besides this general bleeding, leeches should be applied to the seat of the local affection. Many cases, however, occur in Bengal, in which sulphate of quinine, liquor arsenicalis, or some other form of antiperiodic medicine, is required to prevent a recurrence of the paroxysms. The author's remarks on the cases to which these medicines are respectively applicable are extremely judicious; but, there being no novelty in them, we shall abstain from transferring them to our pages. He mentions some remedies very familiar in India, with which we are but little, if at all, acquainted. Among these is the kernel of the Kutkuleja nut, the seed of the *Cæsalpinia Bonducella*. Ten grains of this substance, with four of long pepper and two grains of assafoetida, in pills, twice a day, he has found a very efficacious prescription for natives, in whom the disease has existed long and the feet are slightly swollen, without visceral disease. The Chiretta, (*Gentiana chiretta*), of the tonic powers of which he thinks very favorably in many diseases, is likewise one of his remedies for ague, either alone in a strong decoction, or in the form of a weak infusion, as a vehicle for *liquor arsenicalis*. This last medicine he re-

recommends in doses of six drops for an European, and four for a native, repeated every two hours; observing in this case the general proportion in which he advises medicines to be given to these two classes of men respectively.

The *Continued Fever* of the hot season is a disease with which every individual accustomed to practise among Europeans in the warmer latitudes is perfectly familiar. It is the purest example possible of the *Synocha* of our nosologies. The general system is in a state of high excitement; the pulse is frequent and full; the skin is hot and dry; the thirst is ardent; there is great headach; and the prostration of strength is sudden, and often considerable. Local inflammations manifest themselves early, their seat being the brain, the stomach, the cellular structure round the duodenum and at the root of the mesentery, and the liver. Where the brain is principally affected, there is indifference approaching to stupor; when the stomach mainly suffers, nausea and vomiting occur, and the tongue is either loaded with yellowish mucus or brown fur, or it is dry, pointed, and red at the tip. In the event of a fatal termination, the morbid appearances correspond with the symptoms during life, consisting in sanguineous congestions in the organs mentioned; and, if the disease have lasted for some days in a violent degree, sero-albuminous effusions are found on their surface. This disease frequently attacks plethoric individuals recently arrived in India, and its ordinary causes are insolation, immoderate exercise in the hot season, bathing when heated, costive bowels, and improper indulgence in wine or spirits.

The treatment required in so plain a case is very manifest. It consists in the early application of a depletory and antiphlogistic practice, the patient being bled to the amount of a pound or a pound and a half at the commencement of the disease, and smaller quantities of blood being subsequently drawn according to the resistance of the symptoms, whilst leeches are applied to the vicinity of the organs affected. A large dose of calomel and colocynth should be given after the bleeding, and, six hours having elapsed, a purge of salts and senna ought to be administered till it acts freely. Mr. Twining regards tartar emetic, given in doses of the sixteenth of a grain in half an ounce of fluid every hour, after the patient has been freely purged, as next in efficacy to bleeding.

“Remittent fevers,” Mr. Twining remarks, “are characterized by a diurnal exacerbation and remission of the pyrexia; the paroxysms not coming on with rigor, (though in some cases the commencement of the disease is ushered in by shivering;) the hot stage variable in intensity and duration; followed by perspiration which is often profuse, and occasionally attended with sudden and extreme prostration of strength. The intervals between the paroxysms are often marked by entire cessation of pyrexia. In some of the worst cases of this disease, the phenomena which occur during a paroxysm observe no regular order of succession.” (Vol. ii. p. 287, 288.) He subsequently acknowledges that no concise definition can comprise all the varieties of remittent, modified as the disease is by individual peculiarities, circumstances appertaining to the general atmospheric constitution, those existing in certain localities, and by the nature and extent of the congestions with which it is uniformly associated. In its slighter varieties, it differs but little from the irregular intermittent connected with functional disorder of the digestive organs;

while the more malignant types, occurring during unhealthy seasons, resemble the *pernicious* intermittents of the fens of the south of Europe, which are characterized by the symptoms of extreme congestion of blood in one or more vital organs, by the early accession of debility, oppressed respiration, a small and weak pulse, anxiety, and the predominance of cold perspirations. Probably the only characteristic of the whole tribe that can be regarded as strictly pathognomic is the marked exacerbation; an exacerbation much more considerable than any occurring in the course of a fever called continued, which takes place once or twice in the twenty-four hours. This arises either at eleven A.M. or at nine P.M., or there may be two paroxysms occurring nearly at the periods mentioned. The local congestions which attend this disease often pass rapidly into inflammation, attended with much interstitial effusion. They are seated in the stomach, intestines, cellular structure about the duodenum and at the root of the mesocolon, more especially where it passes across the spine. They likewise often occupy the spleen, liver, brain, or lungs; but there is a great diversity in the relative degree in which these or any organs are affected.

The rapidity with which changes take place both in the disease and the powers of the patient's constitution, renders the treatment requisite in Remittent Fevers at once decisive and delicate. The portion of the Illustrations in which this is detailed is of a character to convey a strong impression of the power of observation and the practical skill of the writer. The employment of that important remedy, bloodletting, should, if possible, take place soon in the disease; the most appropriate periods being the early stage of the first and second paroxysm: later, it is a more doubtful remedy, and demands much caution. Should there be high arterial action, or distinct symptoms of local inflammation, it may be employed later, even on the eighth or ninth day; but, when resorted to at such a period, the patient should be carefully watched; and every accessory remedy, such as quinine, food, and wine, must be administered in proper time. Bleeding to syncope is accounted extremely injudicious: whatsoever induces fainting being found to have a prejudicial effect on the condition of the patient. Local bleeding by leeches to the head or epigastrium, as the symptoms of congestion may indicate, requires less caution. The more powerful purgatives are required in the earlier stages of the disease; but, in a protracted disorder, even in its inflammatory forms, and at all periods in the weak and delicate, and in a low type of the disease, their employment requires care, and we must often substitute for them mild aperients and enemata. Mr. Twining does not consider the frequent repetition of large doses of calomel necessary in any case of the disease, seldom going beyond two doses of twenty grains, and one or two of ten grains in the severest examples. He regards the benefits of salivation as problematical, though he thinks that he has seen in some cases, where there was evidence of effusion having taken place in the brain, a favorable change sometimes immediately precede, and at others follow, this effect of mercury.

One of the most material points of his practice is the exhibition of the sulphate of quinine, during the remission, to prevent the recurrence of the paroxysms. His directions for the management of this powerful agent seem to us extremely suitable to the delicate circumstances in which it is

employed. He thinks less favorably of its use where the cerebral affection seems considerable; but, when other local inflammatory disorders exist, a few small doses given in solution during the apyrexia, frequently alter the character of the malady, and enable the medical attendant to subdue the topical complication with greater ease. When summoned late to a protracted and bad case, he sometimes administers it without previous purging, thinking justly that to arrest a paroxysm is to save the patient's life. The most suitable period for giving it is during the remission, when the patient is perspiring, and probably languid from the preceding excitement. The dose generally employed is four grains, repeated so that about three portions may be taken in the apyretic period. He sometimes associates it with the purgatives employed.

The Congestive Fever of the cold season is an insidious form of disease, characterized, at the commencement, by slight and obscure symptoms. So slight, indeed, are they, amounting to little more than a feeling of lassitude, occasional transient pains in the joints, and inaptitude for intellectual exertion, that the patient continues, in spite of them, his daily business and nightly amusements, for a period varying from three or four days to a fortnight. During this time he probably aggravates his indisposition by taking strong soup, and more than an usual quantity of wine, to relieve the debility under which he considers himself to be suffering. When medical assistance is summoned, the pulse is found to be soft, frequent, and weak; the wrist tremulous; the tongue but little disordered; and there are anxiety and a general sense of weariness. Pain in the forehead exists; the eyes are weak; the bowels are generally costive; and there are fulness and tension across the epigastrium and in the hypochondria. Unless prompt and efficient measures are adopted, there is a slow increase of pyrexia, and nightly delirium supervenes, with drowsiness and stupor during the day; the eyes become red; the tongue much loaded, brown, and dry; the urine high coloured, and sometimes a yellow suffusion of the skin and eyes takes place. An occasional symptom is great soreness of the whole body, particularly perceptible along the course of the absorbents and in the glands, where they are subjected to pressure. On the occurrence of this fever a short time prior to the period of menstruation, the practitioner sometimes delays the use of active remedies, particularly bloodletting, on the principle of not interfering with the course of nature, and for fear of arresting the monthly discharge. The immediate effect of such indecision is an increase of the febrile state; its more remote one the author considers to be that chronic thickening of the *os* and *cervix uteri*, on which dysmenorrhœa frequently depends.* If the fever be slight, and in a delicate person, the medical man may trust its cure to rest, diluents, and aperients; but, under other circumstances, venesection ought to be employed, and even repeated, as in a similar attack not coinciding with the menstrual period.

Dissection does not discover much change of structure different from that found in remittent fever, excepting that superficial ulcerations of the mucous membrane of the small intestines have been found in a few rare instances. Should future observations prove that these ulcers exist

* Professor Autenrieth has observed a similar effect from the occurrence of scarlatina, under parallel circumstances.—*Annals of Med. and Surgery*, vol. ii., p. 292.—REV.

generally in fatal cases, Mr. Twining would consider that a peculiarity of the disease is ascertained, which, conjointly with its character and the season at which it occurs, might establish a resemblance to some modifications of European typhus. Admitting the general resemblance in other points, we cannot suppose the superficial ulcerations mentioned by the author to bear much similarity to the extensive affection of the glands of Peyer described by the French and other pathologists, or they could not have escaped so diligent an investigator, in the more frequent order of cases in which they were not observed. It appears to us, therefore, either that they must materially differ from the corresponding affection in European typhus, or that they must be rare in the Indian malady, instead of being *generally* found, as in the former disease.

At the close of his work, Mr. Twining has an interesting chapter on the constitutions of the natives of India. The subject is so extensive, the population comprising many races, that the treatise cannot be regarded as perfect, professing as it does to describe only the general characteristics common to the whole, but to leave untouched those finer shades by which the Afghans, the Parsees, the Gentoos, and other classes, are discriminated from each other. The native inhabitants of Bengal are in general a handsome race. They possess in common with Europeans the Caucasian conformation of the head, the sides of which are in many individuals somewhat compressed. Their features are regular and well formed, with an expression of mildness. A great proportion of the natives of the lower provinces are of a small size and slight frame, yet many are found who, as well as their more favoured countrymen of the upper provinces, are of good stature and elegant proportion, and remarkable for grace and dignity of deportment. Some notice has already been taken in this article of their constitutional peculiarities, especially of their greater susceptibility of impression and slight capacity of resistance when compared with Europeans, as exemplified in the modification required in the treatment of the diseases which assail them. The author thinks, moreover, that the functions of the skin and conditions of the internal organs are not regulated by the same sympathies, and do not exert on each other the same mutual influence, as in Europeans. To illustrate this position he states that from twenty-five to thirty thousand bathe every morning in the river Hoogly at Calcutta and in its vicinity; they all wash their muslin clothing at the time of bathing, and, with very few exceptions, both men and women walk home in their wet clothes, some of them to a distance of two or three miles. Their religious customs require them to bathe more frequently in the month of November than at any other season, and the morning air is then usually cold; notwithstanding which, they never contract disease by an exposure in wet clothes under circumstances in which it would certainly produce illness in half of any given number of Europeans similarly situated. Yet these same people, who bear this chilling with impunity, sleep under the direct rays of the sun in the hot season, covered only by a common white muslin cloth, and when suffering from fever will not allow the contact of cold water even to wash their face and hands, but are heated by means of pans of burning charcoal to extract the cold which they think has entered the body and caused the disease! The author conjectures that the cause of this tolerance of vicissitudes is to be sought partly in the peculiar structure and functions of the skin and partly

in habitual exposure. A good deal, we think, is to be ascribed to the principle that the exposure to high temperatures increases the calorific power of the body, and consequently that of resisting cold, during a period of considerable duration. Besides the experiments of Dr. Milne Edwards on the subject, this is familiarly exemplified in the case of glass-makers and other artisans in our own country, and is strongly illustrated by the fact mentioned by Count Ségur, that the intense cold of the Russian campaign of 1813 was better supported by Italians, Spaniards, and other natives of the south of Europe, than by those of the north. From the converse of this principle, the depression of the calorific power by cold, it is probable that the Hindoos find their frequent ablutions and lengthened wettings instrumental in mitigating the effects of the ardent heat of their climate.

The natives are liable to certain diseases unknown to Europeans. One of the most remarkable of these is the *Nakra*, or *Nasa*, which literally means the nose-disease. It appears to consist of a sudden and violent congestion of blood in the Schneiderian membrane, which extends to the mucous lining of the sinuses of the frontal, malar, maxillary and ethmoid bones, with pyrexia remarkable rather for rapidity of the circulation than for augmentation of its force. There is great pain in the parts which are the seat of the affection, and in the back of the neck and in the loins, and great heat of forehead. The duration of the disease is from three to five days. It never proves directly fatal, but is sometimes so by the intervention of *Biggar*, a very dangerous disease, with intense cerebral symptoms, to which it occasionally gives rise. The only remedy employed by the natives for *Nakra* is the drawing of blood, by thrusting a rough sharp-edged grass up the nostrils, from the Schneiderian membrane, or puncturing it with a sort of awl. In this way about an ounce of blood is obtained, which affords great relief. Mr. Twining supposes that this disease bears some analogy to one mentioned by Dr. Rush as prevalent in North Carolina, and known there under the name of pleurisy of the head.

That peculiar affection of the cellular membrane of which *Bucnemia Tropica* (Good) is a modification, though acknowledged to be very rare in Europeans, has been observed by Mr. Twining in one individual of the mixed Indo-Portuguese race, in whom, however, the Asiatic blood appeared to predominate. In this disease, the local affection, which consists of an infiltration of serum into the cellular membrane, is associated with irregular intermittent fever. In the case of the Indo-Portuguese, the infiltration took place into the cellular membrane of the left breast. There was a diffused swelling and a depressed cicatrix, which at the commencement of the hot stage of the third or fourth paroxysm opened spontaneously, and a quantity of limpid fluid flowed out. Twelve ounces are sometimes voided in this way in the space of an hour, the fluid in a short time coagulating firmly. The discharge is speedily followed by the cure of the fever, the patient remaining well for several months. A similar series of phenomena, general and local, accompanies that very common form of the disease which is seated in the scrotum. This form is very frequent in the upper provinces, and a very interesting account of it, as it prevails in the vicinity of Midnapore, is given by Dr. Goodeve, in the seventh volume of the Calcutta Transactions. The *bucnemia tropica* or Cochin leg is in general attended in its early stage with returns of

fever once or twice a month; it is, however, in many respects different, both as regards the local affection and the fever, from those cases in which the fluid is evacuated. It is not confined to Asiatics.

We regret that the length to which this article has already extended deters us from presenting the reader with a more copious notice of the valuable matter contained in the Calcutta Transactions than we have yet done. It would, for instance, have been a gratification to us to analyze the paper of Mr. Bramley, in the sixth volume, on the Bronchocele of Nipâl and the Cis- and Trans-Himalayan regions, considering it at once the most learned and the most practical treatise on this disease that has fallen under our observation. The very interesting and extensive researches (conducted over a space of one thousand square miles) of Mr. McClelland on the connexion between the lime-stone formation and the same disease, contained in the seventh volume, contain results which, if confirmed by observations in other quarters of the world, will prove of the greatest importance, relatively to the etiology of *goitre*, and probably of some other affections. The papers of Dr. Wallich on some rare and curious plants of Bengal, in the same volume, contain matters of much interest to the botanist. In the sixth volume, there is a short article by the indefatigable author of the "Illustrations," deserving attention, because it refers to an important fact in the medical history of an agent, iodine, the properties of which are very generally undergoing investigation by the profession. He found that in five out of twenty-three cases of various diseases in which he employed this medicine, pain in the right side occurred, in some in the region of the gall-bladder, but more generally near the ninth rib. He hence infers that the greatest caution is requisite in prescribing it for patients in whom any affection of the liver exists. He regards these facts, moreover, as confirmatory of an opinion expressed by Professor Christison in his excellent work on poisons, that "iodine probably possesses the power of inflaming the liver,"—an opinion supported by two cases, the one resting on the authority of Rust, the other on that of Dr. Zinc, in which death, apparently caused by hepatitis, arose from the excessive employment of this medicine. Experience, however, varies greatly on this point: a case recently fell under our own observation in which the employment of iodine for chronic enlargement of the uterus was followed by acute pain in the hepatic region, extending thence to the right shoulder, and requiring the free application of leeches and mercurial purgatives for its removal. On the other hand, a chronic enlargement of the liver, to such an extent that the organ extended below the umbilicus, the sequel of remittent fever in a youth of seventeen, was entirely dispersed by frictions with a strong ointment of iodine and a course of purgatives.

In concluding this article, it is needless to express our opinion of Mr. Twining's work, we having sufficiently recorded it already. It will, henceforward, be the British practitioner's tropical guide. The materials of the "Transactions" are of course miscellaneous as to subjects, and in some degree so as to quality, but their general character in the latter respect entitles these volumes to a very high rank among publications of this description. We regret that we do not feel justified in speaking in terms of commendation of Mr. Conwell's book, and the more so as it contains evidence of industry, and of considerable, perhaps excessive, ingenuity.

His errors as a writer seem to arise, principally, from ignorance of the wants and taste of the medical reader. From this must have arisen his dedication of forty-two pages to a description of the nerves of the liver, which in a work of anatomy would have been deemed tedious, but in one of practical medicine is preposterous. To a cause of this kind must be ascribed, likewise, his three hundred pages (nearly) of abridged cases, a surfeit to the most voracious appetite for this sort of reading. We would suggest, too, that a style in reality diffuse, though wearing the outward aspect of conciseness and abruptness even to affectation, is but little calculated to win the fastidious ear of the public.

ART. III.

Practical Observations on Strangulated Hernia, and some of the Diseases of the Urinary Organs. By JOSEPH PARRISH, M.D.—*Philadelphia*, 1836. 8vo. pp. 330; with Plates.

OF the various classes into which the writers of medical books may be distributed, according to the motives which have influenced them in becoming authors, there are two which are especially entitled to our attention, and to our respect and gratitude. The first class consists of those stirring spirits, who, while still in the vigour of matured intellect, and floating on the full tide of public favour, find opportunities for the cultivation of literary pursuits, and give to the world, from time to time, the results of their observation and experience on those subjects which have particularly engrossed their attention. That motives of worldly interest and emulation, and a longing after literary fame, should combine in such cases with the purer and more disinterested desire to be useful, will hardly be doubted, and can scarcely be blamed. Whatever the motive, the public are at least the gainers by their labours, and we receive them with pleasure and thankfulness. The second class comprehends those few, unfortunately but necessarily few, whose days have been passed in an incessant career of active practice, and who, towards the evening of life, endeavour to render an equivalent for the public estimation they enjoy, and the honorable distinction which they have acquired amongst their professional brethren, by dedicating their brief space of repose to a review of their past labours, in order that, by collecting the fruits of a long life of experience, they may leave behind them a legacy as valuable to the rising generation as their active and skilful exertions were beneficial to their contemporaries.

We are sorry we cannot include Dr. Parrish amongst this class of authors, without certain limitations. His years, his extensive experience, and, above all, his disinterested motives, well entitle him to be received into such a fellowship; and we can only regret that, with such advantages before him, and with views so evidently philanthropic, he should have fallen so short of the object it was doubtless his intention to accomplish. He appears to have been, through his whole career, a straightforward and pains-taking surgeon, labouring diligently in his vocation, and ministering with the most praise-worthy industry to the bodily sufferings both of the rich and poor: moreover, in the exercise of an exten-

sive practice, he seems to have exhibited an anxiety to embrace every opportunity of increasing his stock of knowledge, both by reading and by personal observation. Nevertheless, we are sorry that, even under all these circumstances, so favorable to improvement, he should have been tempted "to write a book!" However extensive may have been his experience in hernia, and however successful the result of his treatment, we cannot compliment him on having thrown any new light over the pathology of the disease, or of having suggested any improved method of treating it. He repeats and illustrates principles which have been long familiar to every one, but he does nothing more: his book contains a collection of truisms, a detail of symptoms and of modes of treatment familiar to every surgeon, although doubtless the knowledge of these has been acquired and verified by a long course of personal experience.

Dr. Parrish seems to us to show a want of the true spirit of scientific enquiry and of logical inference, and occasionally also a deficiency of anatomical accuracy. This latter defect is the more remarkable in one whose industry is unquestionable, and who must have enjoyed so many opportunities of personal investigation. These remarks we might justify by a reference to almost any part of the volume; but we are not inclined to transcribe its pages, to show how little they contain; neither is it our intention to visit his sins of omission with the severity of criticism, more especially as he seeks to disarm us in his preface, by resigning all pretensions to novelty. But, if we are inclined to pardon the author for not having added more to our stock of knowledge on this important subject of hernia, we cannot be equally lenient towards him with regard to certain parts of his book, where we find him laying down positive rules professedly for the guidance of young surgeons, but which are much more calculated to mislead than to assist them. We allude more particularly to the directions given for the performance of the operations for femoral and inguinal hernia. Dr. Parrish's mistakes are of the more consequence, that, being stated by him with a positiveness arising from evident conviction, they are calculated to become a source of blunder and misconception to the young surgeon.

In speaking of femoral hernia, the author asserts that the edge of Gimbernat's ligament is the cause of stricture. This doctrine is certainly in accordance with a rather favorite notion which formerly prevailed among surgeons, and we believe is still partially current abroad; but the only foundation for Dr. Parrish's belief seems to be the fact, that, when on different occasions he had introduced his finger (in the dead subject) from the groin, through the crural ring into the abdomen, and then carried it inwards towards the pubes, it "hitched" upon Gimbernat's ligament, and was with difficulty withdrawn. No one will dispute the truth of the details of this experiment, but the inference which the author draws from it respecting the seat of stricture is, to say the least, somewhat gratuitous. The direction of the finger, when passed from the exterior to the interior of the abdomen, and then round Gimbernat's ligament, bears not the slightest analogy to the course taken by a femoral hernia; neither does it follow, because the edge of the stricture in question (round which Dr. P. had purposely hitched his finger,) offered an impediment to the withdrawal of the finger, that therefore a femoral hernia, which passes out of the abdomen instead of into it, which then

turns upwards, and which moreover does not hitch round Gimbernat's ligament, should be prevented from returning by the same cause. Had it occurred to Dr. Parrish to pass his finger from the abdominal cavity through the crural ring, and then to direct it upwards over Poupart's ligament, thereby simulating the true course of a femoral hernia, he could hardly have fallen into his present mistake; and perhaps, by pursuing this method, he might have become aware of the real cause of stricture, which consists of a little band of fascia or tendon, situated just beneath Poupart's ligament, crossing directly before the neck of the sac, and well known to all those who have carefully dissected the parts in the healthy or the ruptured state. It is, however, but justice to Dr. P. to observe, that, although theoretically wrong, he appears to have been practically right; for, if we understand his directions for liberating the stricture, the edge of the knife is turned in such a manner as would necessarily divide, not Gimbernat's ligament, but the band of fascia above alluded to.

The following passage occurs in the description of the operation given by our author:

"The situation of the neighbouring vessels also offers an additional reason for deliberate and careful proceeding. It will be recollected that the great femoral artery and vein are contained in the same sheath which envelopes the hernia, and the epigastric artery should also be borne in mind. The last-mentioned vessel arises from the external iliac, just as it passes under Poupart's ligament, where it takes the name of inguinal artery: hence its origin is very near to the outside of the reflected edge of Poupart's ligament, called Gimbernat's ligament, which is the seat of stricture: a very slight division of the ligament outwards would separate the artery at its origin. In dividing the stricture, it is important to have the finger as a guide, and by all means to effect the division upwards, and rather inward." (P. 34.)

We must acknowledge ourselves fairly mystified by this passage. We cannot understand how, by any contrivance whatever, it can be possible to divide the epigastric artery *near its origin* from the iliac, while cutting against the edge of Gimbernat's ligament; the neck of the sac itself and the femoral vein being necessarily interposed between the knife and the seat of the dreaded mischief. We may also be allowed to doubt whether the operator does really divide Gimbernat's ligament by directing the edge of the knife upwards and rather inwards. That Dr. P. does not confound the epigastric with the occasional variety which occurs in the origin and course of the obturator vessel is evident, as he afterwards mentions that variety, and states that on one occasion he distinctly felt the obturator artery beating against his finger immediately over the seat of stricture. In another part of the book, he speaks of the vicinity of the spermatic cord as likely to excite the apprehensions of the young operator, while dividing the stricture in femoral hernia. Now, (setting aside the fact that crural hernia occurs but rarely in the male,) we must say that the young surgeon must have studied his anatomy to little purpose, or he need be under no great apprehension of bleeding his patient to death by dividing the epigastric artery, or emasculating him by cutting the cord.

Near the beginning of the volume, Dr. Parrish alludes to the method of dividing the stricture outside the sac, and then returning the contents

without opening the sac itself; a plan which was recommended by some of the earlier surgeons, and has lately been revived and successfully practised by Mr. Key. This plan he decidedly deprecates, and states his fixed resolution never to adopt it under any circumstances. He devotes some pages to this subject; but the reasons which he gives for making it an invariable rule to bring the contents of the hernia into view, amount merely to a repetition of the well-known fact, that there are some circumstances under which it would be more unsafe to return an intestine to the abdomen than to leave it in the sac. He forgets that the possibility of such contingencies as gangrene, internal stricture, &c. would operate equally in deterring us from reducing a hernia under any circumstances, or employing the remedial means usually adopted for the purpose of avoiding the necessity of an operation. He seems hardly to be aware of the object and intention which the surgeon has in view by dividing the stricture external to the sac; namely, that he may employ the taxis under a condition of parts which he has rendered more favorable to its successful application, in preference to subjecting the patient to the risk of peritoneal inflammation by opening the abdominal cavity.

As, however, the excellent memoir in which Mr. Key has explained and advocated this method of reducing hernia must be known to most of our readers, (although our author does not appear to have read it,) we do not think it necessary to enter into any controversy on the question. An assertion which Dr. P. makes, that wounds into the serous cavity of the abdomen are not liable to be followed by peritonitis, will hardly be corroborated by his professional brethren. Neither are we warranted in drawing an analogy between the accidental wound of a healthy serous membrane, and an incision made through a portion of the peritoneum already inflamed, together with the exposure of a morbidly sensitive intestine to the influence of the air and the manipulation of the surgeon. In another part of the book we find the details of a case in which our author attempted, although unsuccessfully, to relieve the stricture without opening the sac. It seems, however, to have been an unfortunate instance in which to make trial of that method, as strangulation had existed during four days, and, on exposing the contents of the hernia, the omentum was found in a state of complete gangrene.

We shall devote the remainder of this article to the notice and arrangement of certain facts, as we find them scattered in the detail of a vast number of cases, which constitute the chief bulk of the volume. We heartily wish that the author himself had saved us this trouble, and that he had shown himself more capable of appreciating the useful application of his own labours and great experience; from which we certainly had a right to expect some valuable principles, some practical observations, or new suggestions, applicable both to the diagnosis and the treatment in obscure and difficult cases of this important disease. We shall do Dr. Parrish all the justice in our power, by quoting his own words whenever it is practicable.

The practice of giving large doses of opium previous to an operation for hernia is not very general among our own surgeons, but was invariably adopted by Dr. Parrish, and apparently with beneficial results. He thus states his belief in its efficacy:

“When the operation is concluded upon, it is my uniform practice, as in most other operations, to give an opiate either by the mouth or rectum. I am aware that the general application of this practice is objected to by some men of high character: it is said that opium is a stimulant, and tends to excite the system, produces fever, &c. This fear, I believe, is grounded in theory rather than in practice. I give opium to prevent fever, and believe the practice to be not only successful but rational. The calming influence generally produced by this article tends to lessen the pain of surgical operations, and the shock which they occasion; and hence it assists in mitigating one of the great sources of subsequent reaction and fever. I have never seen any other effect produced by it, although I have employed it very generally in my surgical practice.” (P. 28.)

The dose of opium usually administered, as far as we can gather from the history of cases, was from one to three grains. He appears also to have considered it as a valuable article in the treatment for the reduction of strangulated hernia, and far preferable to the depleting and depressing measures generally employed, such as the warm bath, bloodletting, and tobacco: since these exhaust the powers of the patient, rendering him less capable of undergoing the shock of an operation, should such an alternative become inevitable; whereas, opium has a directly contrary effect. Indeed, the success which generally attended the operations of Dr. P. appears mainly attributable to his having early recourse to the knife without suffering the vital energies of his patient to be destroyed by previous depressing remedies. He considers sixty drops of laudanum, exhibited by the rectum, as fully equal to thirty given by the mouth. The moderate use of the lancet, followed up by a very full dose of opium, seems to have been the favorite means adopted by Dr. P. for the reduction of hernia.

At page 88 we find the details of a rather interesting case, in which a femoral hernia, after having resisted all the ordinary means for reduction, yielded at length to the remedies of a quack doctor. The subject of the case was a woman, aged fifty, in whom an old crural rupture had suddenly become strangulated. The usual succession of symptoms came on, but marked with peculiar violence; she obstinately refused to be relieved by operation; fecal vomiting supervened; and, on the evening of the third day, Dr. P. left her, as he considered, in *articulo mortis*. We give the sequel in his own words:

“On calling the next morning to see the patient, I found her still alive, and that she had called in a black man, celebrated in the Neck, (the low country south of the city,) as ‘a curer of ruptures’ both in men and in cattle. I remained, being somewhat curious to watch his proceedings. The hernial tumour he had covered with a poultice of bruised herbs,—the leaves, so far as I could judge by the smell, of stramonium,—and he was preparing an infusion of herbs to be used as an injection. This infusion was evidently of senna leaves. The injection he proposed to administer every fifteen minutes, by means of a very large and very powerful syringe. He spoke confidently of the successful result of the case. I saw the patient again on the following morning, and, to my astonishment, found her in a tolerably comfortable condition! The hernia was reduced; all the alarming symptoms, under which she had laboured on the preceding day, were gone; and, though extremely weak, she was evidently in a fair way for recovery! I learned that after continuing the injections for nearly two hours, there occurred a copious evacuation from the bowels, of a number of hard balls; and that then suddenly the tumour had disappeared with a gurgling noise. These balls had

been preserved for my inspection: they were formed of hard, dark-coloured feces of different sizes, from that of a pea to that of a pistol ball, or even larger. The patient continued daily to amend, and, at the termination of ten days from the reduction of the hernia, was seen by me sweeping off her door! September 19, 1835. I saw her this day. She enjoys excellent health; and, so far as I am able to say without an actual examination, is radically cured of her hernia." (P. 91.)

The use of stramonium, although a powerful sedative and narcotic, has not, we believe, been adopted as an application in cases of hernia; but we gather from the details of a subsequent case that the hint afforded by the successful operator in the foregoing one, was not thrown away upon Dr. Parrish, as we find him diligently covering the abdomen with the leaves of the plant, and administering injections of senna. Although we are far from denying the beneficial effects of stramonium, and should much wish to give it a fair trial ourselves; yet we cannot quite agree with the Doctor's observation on the rationale of the treatment, when he says,

"Every practitioner is familiar with the dilating power of the extract of stramonium over the iris, and in this case the poultice certainly did appear to dilate the abdominal ring." (P. 70.)

We are not aware whether Dr. P. was generally in the habit of exhibiting injections with a view to effect the return of the intestine previously to having recourse to an operation, and he makes no mention of them amongst his means for reduction. We regret not having the recorded benefit of his experience on this point, as we believe that the use of emollient or purgative enemata, introduced high up into the intestine by means of a long pipe, may be rendered of powerful avail; more especially in cases of old hernia, where there is reason to suppose that an habitually constipated state of the bowels existed previously to the strangulation.

The sudden evacuation of a large quantity of feculent matter and flatus, which often follows the administration of these remedies, and the consequent diminished volume of the contents of the abdominal cavity, together with the peristaltic action which is probably set up in the intestinal canal, are calculated to produce the happiest effects in the reduction of a rupture. The profession is much indebted to Dr. O'Beirne, of Dublin, for his valuable suggestions on this subject, in his interesting and original work on Defæcation.

We are surprised that Dr. Parrish does not allude farther to the use of injections, as he seems fully aware that the large intestines are frequently overloaded, and warns the practitioner not to imagine, from the casual occurrence of an evacuation during the symptoms of strangulation, "that the intestinal canal is therefore necessarily free from the stomach to the anus." A similar delusion, he says, may be produced on the mind of the surgeon by the return of the clyster tinged with the fecal colour and possessing the fecal odour. We think his experience might have warranted his going much farther in his statement, and informing his readers that it is not very uncommon to obtain copious feculent dejections from the large intestines under the use of enemata, while at the same time a portion of the ileum or jejunum may be retained in a state of firm strangulation.

Almost every surgeon of much experience will have seen cases of hernia where the symptoms of strangulation continued after the bowel

had apparently been returned by the taxis: or, again, it sometimes happens that an operation, although promising and satisfactory to the surgeon, nevertheless fails in producing the expected result. The vomiting remains unchecked, the constipation is not relieved, the pain and tension of the abdomen become increased, and the patient dies without any cessation of the original symptoms. In these cases of perplexing difficulty, Dr. P. places great reliance on the continual administration of calomel in small but very frequent doses.

"A train of the most alarming symptoms may continue for days after reduction, and yet may yield to appropriate medical treatment. The remedy upon which I have placed chief reliance in these cases is mercury, introduced into the system in extremely minute portions. Calomel, in the dose of one-quarter or one-sixth of a grain, given every one or two hours, is the form I would recommend." . . . "I shall not attempt to discuss at large the *modus operandi* of this remedy. It is well known that calomel, even in very small portions, has the power of correcting functional derangement of the liver and of exciting the flow of healthy bile. That bile of this description is the most natural excitant of the bowels, and is admirably calculated to promote steady and healthful peristaltic action, it is presumed will be generally admitted. The introduction of calomel in such minute portions as not to offend the stomach, or to produce any constitutional irritation, is peculiarly appropriate in diseases where the stomach is irritable, and in none more so than in strangulated hernia. Large doses of calomel excite the liver and alimentary canal to increased action, and thus transcend that medium which it is so desirable to maintain: hence, while powerful doses are obviously injurious in cases of recent strangulation, the accumulated effect of minute portions frequently repeated may be attained; while at the same time the irritability of the stomach is allayed." (P. 64.)

The cases are given in illustration of these remarks. In the first, the most violent symptoms of strangulation supervened after the hernia had been returned by the taxis. Stercoraceous vomiting, accompanied by a tympanitic state of abdomen and obstinate constipation, continued for six days, when copious evacuations were at length obtained from the bowels, and the recovery became rapid. In a second similar case, the bowels were not relieved until ten days from the commencement of the original attack: the vomiting, which was at first incessant, became afterwards checked. In the third case the hernia was returned by operation, after which eight days elapsed before evacuations could be obtained; and, during this time, the patient manifested much of the ordinary symptoms which indicate a fatal termination from strangulated intestine. Vomiting, however, does not appear to have been present. In these three instances calomel was constantly administered in divided doses; but, as we likewise learn from the reports that the patients were vigorously plied with purgatives of various descriptions, exhibited by the mouth and injected into the rectum by means of a long elastic tube, it is rather difficult to give a decided opinion as to the specific effect of the mercury, of the salutary operation of which we have already given the author's explanation. In the first case reported, it could not have been very efficacious, as the patient appears to have thrown up all the ingesta admitted into his stomach, together with, occasionally, the contents of the small intestines. In the last two cases the calomel was probably more effective, as the gums of both the patients exhibited the usual appearances produced by that medicine. Dr. Parrish makes no particular mention of instances of this

kind accompanied by a fatal result: we have been unfortunate enough to witness the post-mortem examination of some few, in which the inflammation originally produced at the strictured part had slowly extended along the course of the intestine, sometimes accompanied by general or partial peritonitis. A want of vital power, necessary to the restoration of the injured parts, generally seems to prevail in these cases; and the surgeon thus finds himself thrown on to the horns of a dilemma, having to combat the progress of inflammation on the one hand, and to sustain the sinking energies of his patient on the other.

From the chapters dedicated to the operation, we select some remarks on the treatment to be adopted under various states and conditions of the contents of the sac.

When the intestine is found to have contracted adhesions to the surface of the sac, and more particularly about its neck, the author's practice has constantly been to separate these, and at all events to return the gut. In such cases there is often a layer of fresh adhesive matter coating the intestine: this he removes with the handle of his scalpel. Indeed, whenever the intestine is coated with lymph in consequence of inflammation, even where no adhesions to the sac are present, he considers it necessary to peel off the adventitious covering before restoring the gut to the abdomen. This we should have considered rather a work of supererogation, if not a meddlesome interference with the operations of nature; but, as our author cites several cases in which the practice was adopted, and the result successful, it may be useful to know that the parts will bear this denudation, and the patient recover after what would be considered by some surgeons as unnecessary, if not a hazardous proceeding.

We pass over the section on Gangrene, in order to advert to the subject of entero-epiplocele. The opinions of medical men are still somewhat at variance respecting the best treatment to be adopted with regard to the omentum. When the omentum contained in the sac is moderate in quantity, and has recently descended along with the intestine, there can be no doubt respecting the propriety of returning it, and little difficulty will probably be experienced in so doing: but, on the other hand, a source of doubt and perplexity always presents itself when a surgeon finds the greater part of a hernial sac occupied by a large mass of omentum, which, from its alteration in form or its morbid condition, he either cannot or ought not to return into the abdominal cavity. He then feels puzzled to decide how he is to dispose of it with most advantage, or rather with least danger to his patient. The conditions of protruded omentum which thus become a source of difficulty to the operator are two: 1st, in old hernia, where the omentum has long lain within the sac, and has become hardened, conglomerated, and moulded to the cavity; 2d, where it is gangrenous, or in a state approaching to gangrene.

Dr. Parrish expresses himself in the following manner with regard to the first condition, which he, in rather metaphorical language, designates "expatriated omentum."

"Some readers," he says, "may smile at this term; but perhaps they may be convinced that it conveys a brief but just illustration of the condition of the parts. It is possible for a man to absent himself for so long a period from his native country, that his early associations may be completely dissevered. He may acquire

new views, he may cultivate other affections, and may become estranged from the land which gave him birth. In the course of events, such an alien from his country may return as an enemy, clothed in hostile array. So it is with the omentum; a portion of this structure may be separated for so many years from the cavity of the abdomen, that it may entirely lose its native character. Instead of a soft yielding apron of fat, destined to spread over the delicate bowels, it may become converted into a solid mass, bearing no resemblance to its original structure, and totally unfitted for the performance of its appropriate functions. It is expatriated, and has become an alien from its native home. If in this condition it be forcibly returned within the cavity from which it originally escaped, it may act as an extraneous body, and may prove an agent of discord, danger, and death." . . . "The question then arises, what is to be done with expatriated omentum? If a small portion present itself, and can be conveniently cut off, no danger need be apprehended from hemorrhage; but, when a large mass is encountered, it has generally been my practice to allow it to remain undisturbed." (P. 123 and 145.)

With regard to the propriety of returning "expatriated omentum," the question is generally set at rest by the impossibility of effecting its reduction; for, in most cases, either the adhesions which it has formed will prevent the restoration of the stranger to his long forsaken home, or else, like *Æsop's* weasel in the granary, it has become so bulky and unwieldy as no longer to allow of its re-entrance through the same opening by which it originally escaped. The question, therefore, upon which nine times out of ten the surgeon will have to decide, is whether, having reduced the intestine, he shall leave the omentum in the sac or cut it off; and here we cannot help observing, that the alternative which Dr. P. has adopted in his practice appears to us both unscientific and erroneous. If he considers that it is safe, or rather that it is expedient, to leave a large mass of omentum in the sac, why should he resolve upon removing a small quantity, which can produce no farther inconvenience by being suffered to remain in a situation where probably it has existed for years. No one, we conceive, would be inclined to meddle with "expatriated omentum" if it could be avoided; and it is only when the quantity is so large that it protrudes through the external wound, and prevents the edges from becoming approximated, that we should ever be disposed to take the propriety of its excision into consideration. Yet Dr. P. decides that a small portion shall be removed, because it can be done conveniently. A broken arm may be cut off with great convenience to the surgeon, yet such treatment would hardly be met by a reciprocity of feeling on the part of the patient.

The probability of hemorrhage may indeed be a reason for declining to excise a large mass of omentum, (although we should not, in such cases, contemplate any risk of internal bleeding, as it is most unlikely to be drawn up into the abdomen;) but the exemption from this danger can be no reason for determining on the removal of a small portion. Five cases of operation are given, where intestine had become strangulated in a sac containing "expatriated omentum." In three of these cases the omentum was removed, and the patients recovered: the history, however, is incomplete as regards the information for which they are detailed, as no mention is made as to the quantity of omentum, or whether it had contracted adhesions; but, as they are given in illustration of the author's views, we suppose the "expatriated" mass to have been inconsiderable. In the

two remaining instances, where the omentum was considerable in quantity, it was suffered to remain. They both terminated fatally, but we should observe that the patients appeared to be in a hopeless state at the time of the operation.

When the omentum is found to be in a gangrenous condition, the treatment recommended by Dr. Parrish is as follows:

“Believing that the excision of a large mass of omentum is attended with risk by any method, I have pursued the practice of leaving the mortified portion in the wound, relying upon the efforts of nature to effect its separation from the sound parts. This process may be assisted by the gradual yet very gentle pressure of a ligature around the root of the diseased mass, in such a manner that the patient may at any moment unloose it, if he should feel pain or sickness.” (P. 159.)

One case is given in which this treatment was adopted. The operation was performed on the fourth day after strangulation had taken place. The sac contained about eight ounces of omentum partially sphacelated. After returning the intestine, the lower part of the wound was closed by sutures, and the omentum left protruding above. The gangrenous portion speedily separated; a ligature was then applied around the sound part, which still remained exposed. Its entire removal was subsequently effected by this means, and the patient recovered. Another case of entero-epiplocele is related, where the intestine was returned without operation; the omentum which remained in the sac became gangrenous, and was eventually discharged by spontaneous abscess. The patient perfectly recovered.

The history of Dr. Parrish's cases, however, and the result of our own experience, would much incline us to avoid any unnecessary interference with protruded omentum, and to place our chief reliance in the spontaneous operation of nature for effecting a favorable termination. The instances in which a removal of any portion might be deemed expedient, are those where adhesion had taken place between the omentum and the neck of the sac, so as in some degree to shut out its direct communication with the abdomen.

We must here close our review of Dr. Parrish's book. We have endeavoured, at considerable pains to ourselves, to cull from it whatever we considered might afford practical information to the surgeon; and it has more especially been our aim to render the recorded experience in difficult cases subservient to the establishment of some fixed principles by which his treatment may be regulated. The imperfect arrangement and the desultory style of the author have tended greatly to impair the general utility of the work; and we can only hope that he has rendered his experience more available to his patients than it will ever be to his readers. Dr. Parrish is, doubtless, an excellent man, and a good practical surgeon; but his forte is not in writing books.

ART. IV.

Researches into the Physical History of Mankind. By JAMES COWLES PRICHARD, M.D. F.R.S. &c. &c. *Third Edition.* Vol. I.—London, 1836, 8vo. pp. 376.

It is an interesting fact in the history of medical literature, that several of the most valuable works, and those which have extended far and wide the fame of the authors, have originated in an inaugural thesis. An accidental direction having been given to the student's attention in early life, the germ of the future work has often existed in the academical dissertation, and each new edition has manifested the greater extent of enquiry, the increased learning, the wider observation, and the more matured judgment of the writer. Such, we believe, was the origin, and such has been the progress, of the work before us; a work already celebrated, and of a scope so extensive, and so full of minute information, as almost to deter a mere medical critic from giving an account of it.

In the ten years which have elapsed since the appearance of the *second* edition of this work, numerous contributions have been made to the *Physical History of Mankind*; but we have seen no comprehensive work which has recalled our attention to the whole of this vast subject, until the appearance on our table of this, the first volume of Dr. Prichard's third edition. The progress of the general science of natural history has, however, been very great within this short period, not only with the public, but among medical men. The ungenerous notion, formerly so successfully disseminated, that no medical man should attempt to be a man of science, exists no longer. A medical man cannot preserve his intellectual rank in society without some scientific acquirement, and subjects which were once almost confined to the closets of philosophers are now discussed at dinner tables, declaimed upon in drawing-rooms, and settled at conversazioni. So far from considering these circumstances as indicative of a general superficiality of acquirement, we regard them as proofs of some acquirement where formerly there existed none; and as belonging to that general uplifting of all classes in the scale of knowledge which, to say the least of it, may be contemplated without disdain. One result of this advancement of science will be, we doubt not, that for every reader of the previous editions of the work before us there will be ten readers of the present one.

The physical history of man was "first explored," in the words of Dr. Prichard's dedication, by "the venerable and universally celebrated Blumenbach." Before his time, no work of any consequence had appeared on the comparative anatomy of the human races, and he was the first to make a collection of human skulls sufficiently extensive to illustrate important diversities of structure. Dr. Prichard himself was the first to institute an express enquiry into the comparative physiology and psychology of different races of men, his inaugural essay being published in 1808, and the first edition of his larger work in 1813. Throughout these successive publications, Dr. Prichard has maintained the unity of the species in all the races of mankind; a doctrine supported by Mr. Lawrence in his celebrated lectures, but opposed by Rudolphi, Virey, Desmoulins, Bory de Vincent, and other writers, who contend for

an original diversity of races; the latter opinion being countenanced by Cuvier, and, Dr. Prichard thinks, by De Humboldt, De Spix, Martius, and several distinguished French navigators and naturalists. Notwithstanding this formidable array of names, Dr. Prichard's faith in the opinion of the unity of the species remains unshaken, and his work may be considered in the light of an immense collection of evidence in favour of it. The volume before us is divided into two books, whereof the first is devoted to the consideration of the *Origin and Dispersion of Organized Beings*, and the second to an *Analogical* investigation of the *Identity or Diversity of Species*.

The difficulties attendant on the whole of this enquiry are great, and yet not obvious, except to those who have made some advance in it. Ordinary observers would be inclined to do what philosophers have often been content to do, namely, seeing the evident and striking diversities of mankind, to take it for granted that the origin of the different races must have been as diverse as are their external characters, their complexion, form, and habits of life. A person imbued with no previous theories, but to whom the whole spectacle of human diversities was at once exhibited, would perceive the difficulty of referring such remarkable varieties to one stock or commencement.

"If such a person, for example," says Dr. Prichard, "after surveying some brilliant ceremony or court-pageant, in one of the splendid cities of Europe, were suddenly carried into a hamlet in Negroland, at the hour when the sable tribes recreate themselves with dancing and barbarous music, or if he were transplanted to the saline plains over which bald and tawny Mongolians roam, differing but little in hue from the yellow soil of their steppes, brightened by the saffron flowers of the iris and tulip,—if he were placed near the solitary dens of the Bushmen, where the lean and hungry savage crouches in silence, like a beast of prey, watching with fixed eyes the birds which enter his pitfall, or the insects and reptiles which chance may bring within his grasp;—if he were carried into the midst of an Australian forest, where the squalid companions of kangaroos may be seen crawling in procession, in imitation of quadrupeds;—would the spectator of such phenomena imagine the different groups which he had surveyed to be the offspring of one family? and, if he were led to adopt that opinion, how would he attempt to account for the striking diversities in their aspect and manner of existence?" (P. I.)

To solve the great question which would suggest itself, several subordinate questions must be entertained, relating to physiology, to the nature of intellectual and moral diversities, and to the origin and formation of languages; questions for the elucidation of which it is not necessary for us to remind the reader that Dr. Prichard is eminently qualified by the rare combination of the learning of a scholar with the range of observation and practical knowledge of a philosopher. This kind of enquiry is followed, although not in the volume now before us, by an historical examination of the *changes* which have actually arisen in the physical characters of nations or human races;—a portion of the enquiry which Dr. Prichard terms the ethnographical. The bearing of both these modes of enquiry on the question of the identity or separateness of the human species will readily be understood. He enters upon the whole task with the candour of a well-prepared augmentator, placing before us the difficulties attendant on his own theory, and their apparent removal by the admission of the supposition of a variety of origins; by which we should seem at once able to explain diversities of colour, the causes of which are

obscure, and also to reconcile the fact of many distinct forms of speech prevailing in different parts of the world with that of the similarity traceable between the existing Egyptian language and that which was known in the days of Joseph or of Abraham. The striking differences in the moral and intellectual qualities of different races, the discovery of inhabitants in lands before unknown, and of some of them the barbarous or primitive customs, and the remains, even among such people, of a race anterior to them, and extinct, and of whom no other memorials exist, would all seem to be accounted for by the supposition "that each distant country was originally provided by nature with a peculiar stock of home-born inhabitants."

Against such a supposition, Dr. Prichard observes, might be set the authority of the Sacred Writings, of which, however, he considers that he cannot with propriety avail himself in such an enquiry as he proposes. But he still considers the supposition as untenable, and proposes to combat it on other grounds.

Proceeding to the first part of his enquiry, or that which relates to the origin and dispersion of organized beings, the question is discussed, "Whether, throughout the organized world, including both its great departments, it has been the method of nature (if that expression may be used,) to produce at first only one family in each particular species, or to call beings of the same specific structure into existence simultaneously from different beginnings, and to diffuse them over the world from many distinct centres or original points." Some of the most probable of the different hypotheses which have been maintained on this subject are examined; that of Linnæus, that all animals and all plants originated in one common birthplace in some fertile region of the earth, the only tract as yet laid bare by the subsidence of the primeval ocean, being dismissed as "more allied to poetry or fiction than to a serious investigation of the phenomena of nature." Two other hypotheses, concerning which the botanists of the present day are divided, are carefully considered; the first being that every species or distinct tribe of vegetables had a distinct centre or birthplace, but that their first centres or birthplaces were in different regions of the earth; and the second being, that the vegetable tribes are universally spread over the earth, and brought into existence wherever circumstances favour them. The latter conjecture is considered by Dr. Prichard as not being more tenable than that of Linnæus. Districts of the globe having a parallel temperature and elevation, a similar soil, and equal humidity, are found to produce species of plants which are *not* identical; and plants become naturalized in countries to which they have been conveyed by human agency, but where they were never produced before. The probable conclusion at which Dr. Prichard arrives, after an enquiry very full of interest, but which we cannot attempt to abridge in these pages, is, "that each tribe of plants, and especially of the more perfect plants, had on the earth one original habitation, from which it has been dispersed according to the capabilities afforded by its structure, and the aid of external agencies." (P. 53.)

Those who have not attended to this subject are little aware of the provision made for the extensive dispersion of seeds. They are fully considered by Dr. Prichard. Among them human agency is very important. Wherever human beings exist, some vegetable clings to life or

flourishes in the sun, furnishing food, or clothing, or the materials of dwellings, or grateful shade. In the intentional transportation of the most useful kinds, others are accidentally conveyed, and often to distant parts of the earth. When rice or other grain is imported for food, the knap-weed, the *Erigeron Canadense*, and other plants, intrude themselves unsought; and sometimes the intruders, as is the case of the thorn-apple and the hemp, prove as useful as the seeds they accompany. The wild plants of Africa come to Europe with the wheat of Barbary, and take root in the south; and near the gate of Montpelier, where foreign wools are dried, foreign plants, which have adhered to the fleeces, find nourishment in the soil, and spread out their leaves in a strange land. The seeds of plants adopted from the wilds of North America, and cherished in the gardens of France, have been blown by the winds of heaven to every temperate region of Europe; and the plants of Europe fertilize and adorn the Cape of Good Hope. This kind of dispersion has occasionally led to curious observations. In the neighbourhood of Warminster, we read in the *Philosophical Transactions*, the good people were, more than a hundred years ago, surprised by what they deemed to be a shower of wheat; which, however, proved to be ivy-berries. One of the versions of the time was, that they were "found in the hail, as seeds in comfits."

The agency of animals is also subservient to the diffusion of vegetable productions. Birds not only swallow and eject seeds without impairing their vitality, but some seeds are rendered even more fit for vegetation by this process. Such is stated by Mr. Lyell to be the case as respects the seeds of the white-thorn; the growth of the quickset being hastened if the seeds have previously traversed the digestive canal of turkeys.

But the atmosphere and water are the great means of the diffusion of seeds. It is a subject of popular observation that new plants will make their appearance when a portion of ground has been laid bare. These are sometimes the product of seeds which seem to have been long buried in the ground, but often, Dr. Prichard maintains, merely produced by the deposition of seeds by the atmosphere in soils rendered congenial to them by the new process. Wherever wood-ashes are strewn, or weeds are burnt, or soap-lees spread on the ground, clover will make its appearance, and white clover follows the drying, and liming, and breaking up of the Scotch hill-pastures; and in all these cases, the vegetable or mineral alkali is supposed to have made the earth a congenial receptacle for seeds which floated in the air. So also, the growth of some plants is known to prepare soils for the reception of other species. When the great pine-forests of America are destroyed by fire, they are succeeded by forests of oak. It must, however, be confessed, that in the instances in which seeds could not have been recently introduced, Dr. Prichard is compelled to remain satisfied with the mere conjecture of their having long remained buried in the earth; and to this cause, as well as to that of the same subterraneous cryptogamous plants being found in the mines of New Spain as grow in deep excavations of the earth in Europe, although Dr. Prichard's views do not want support in the evident traces, of other kinds, of ancient inundations and changes, which must have affected the vegetable as well as the mineral world,—the opinion of Rudolphi would probably afford a more satisfactory solution to many readers; namely, that the seeds of

plants are universally diffused, and grow wherever certain conditions exist essential to their growth. But that the light seeds of numerous plants are carried far by the winds is well known; and the structure of the seeds seems evidently adapted to such flights in many instances. M. de Candolle found two lichens of Jamaica on some trees on the south-west coast of Brittany, the seeds of which he supposed to have been brought across the Atlantic during the long prevalence of south-westerly winds.

Many seeds float upon the waters; and those of the sea-coast especially are transported to the coasts of other countries. The seeds of tropical plants are thus collected in the Hebrides. The Alpine streams scatter on the banks of rivers in the plain the seeds of mountain-plants. The rivers of Germany carry seeds from the interior to the Baltic; and on the western shores of the Atlantic are found those of the interior of America.

Having come, then, to the conclusion that each tribe of plants, or at least of the more perfect tribes, had its own original place of habitation in the earth, from which it has been more or less dispersed, Dr. Prichard proceeds to extend a similar mode of enquiry to the lower animals, before entering upon it with respect to mankind. On the threshold of this enquiry, he meets with the fact respecting animals, so analogous with what he had previously mentioned respecting plants, that whilst those of greatest bulk and most complex organization seem limited to certain portions of the earth, those of the smallest size and simplest structure are almost everywhere dispersed. Dr. Prichard does not conceal the difficulty of applying here the explanation offered when speaking of the universal dispersion of the lower orders of plants, nor the ridicule thrown by Rudolphi on the hypothesis of the ova of such animals being diffused through the atmosphere. He refrains, however, from entering fully on the difficult question of equivocal or spontaneous generation, which, he observes, is at least not required with regard to the higher order of animals; whilst, with regard to the lowest, the experiments of Spallanzani and Sennebier prove "that, by precluding the access of minute seeds and ova floating in the atmosphere, the production of minute animal and vegetable life is prevented, in a very great measure at least, from taking place." (P. 55.)

So many insects depend for existence on particular plants, that their dispersion may reasonably be supposed to follow the same order, and often to be produced by similar causes. No insects are universally diffused. But the argument rests more securely on the facts known respecting birds: those of weakest flight are found confined to the narrowest limits, as the parrot tribe, the humming-birds, and the common grouse of England; a fact only explicable by the theory which supposes their original habitation to have been distinct. As regards cetaceous animals and fishes, the limits within which particular species are confined appear to be still more generally marked, and with a smaller number of exceptions. The mammiferous animals and quadrupeds seem even more palpably to be limited to certain provinces, to which they are partly confined by the difficulties of egress, and partly by climate. The region round the North Pole is one of these provinces containing "tribes of quadrupeds common to all the northern regions of the world." Thus also

certain quadrupeds exist in the temperate zone, and range from the western to the eastern extremities of the old continent, whilst the quadrupeds of the same zone in the New World are entirely different. The equatorial zone, divided into three great tracts by wide seas, impassable to quadrupeds, contain three distinct assemblages of animals, the American, the African, and the Indian.

“Fourthly. The great and numerous islands of the Indian Archipelago, separate, and perhaps anciently torn from the continent of Asia, form, with reference to their geographical position, a distinct region of the earth, which is similar in climate and in its vegetable productions to the hottest parts of Africa. Here we shall expect to discover mammifers and reptiles of peculiar character.

“Fifthly. Beyond the Indian Archipelago, we find a remarkable country, very fertile in vegetable productions. Papua includes New Guinea, New Britain, and New Ireland. The lofty mountain ranges which support it spread themselves out in several great arms, and run southwards into the Pacific, forming straits and groups of islands, everywhere attaining a considerable elevation. The Archipelago of Solomon, the Arsacidæ, Louisiade, Santa Cruz, Tierra del Espiritu Santo, the New Hebrides, New Caledonia, and perhaps the two long islands of New Zealand, appear to be branches of the same central region.

“The more remote groups of islands in the great Southern Ocean may be reckoned as parts of the same zoological province. The whole of this region is placed under circumstances likely to call forth the most abundant productions of organized nature. In fact, its vegetation is luxuriant; but, as we might expect to find, in conformity with the preceding observations, the animal creation is as remarkably deficient in its principal tribes.

“Sixthly. Beyond the Indian seas, but separated from New Guinea only by straits, we find an extensive continent, differing from the rest of the world in all its physical peculiarities. Terra Australis, or Austral Asia, according to the best informed observers, is peculiar and striking in its geological aspect. It is equally remarkable for the singularity of its vegetation. In no part of the world has the animal creation so distinct and peculiar a character.

“Seventhly. The southern extremities of America and of Africa contain countries situated under a similar climate. The temperate parts of these continents, as well as that of Terra Australis, are thus so many insulated regions. In all we may expect to find peculiar tribes.” (P. 70.)

Dr. Prichard devotes a section to the consideration of the peculiar characters of each of these great zoological provinces, in which are enumerated many facts very interesting to the naturalist, and all bearing on the great questions of the dispersion of animals from one common centre, their universal diffusion, or their location in particular latitudes, and dispersion within such zone as widely as physical obstacles would allow. The first of these is dismissed, as involving difficulties which amount to physical impossibilities, and as “contradicted by the uniform tenour of facts, both in botany and zoology.” The second, also, is put aside as inadmissible. With respect to the third, Dr. Prichard thus expresses himself, and with these words concludes the preliminary portion of his enquiry.

“The inference to be collected from the facts at present known seems to be as follows:—the various tribes of organized beings were originally placed by the Creator in certain regions, for which they are by their nature peculiarly adapted. Each species had only one beginning in a single stock; probably a single pair, as Linnæus supposed, was first called into being in some particular spot, and the progeny left to disperse themselves to as great a distance from the original centre of their existence as the locomotive powers bestowed on them, or their capability of

bearing changes of climate, and other physical agencies, may have enabled them to wander.

"The bearing of this general conclusion on the enquiries hereafter to be pursued is sufficiently obvious. We have now to investigate the question, whether all the races of men are of one species in the zoological sense, or of several distinct species. If it should be found that there is only one human species in existence, the universal analogy of the organized world would lead us to the conclusion, that there is only one human race, or that all mankind are descended from one stock. It is the more improbable that a plurality of races exists in one species with reference to man than with regard to any inferior tribe, as the locomotive powers of mankind, aided by the resources of human sagacity, are greater than those of brute animals." (P. 96.)

The philosophical spirit in which Dr. Prichard entered upon the extensive enquiry which constitutes the subject of the work, is, the reader cannot but observe, signally attested by the circumstance that, up to this stage of it, all the analogies are against the view he ultimately takes of the origin and dispersion of mankind. Impressed with the facts resulting from an investigation of the origin and dispersion of plants, and still more of the lower animals, up to man himself, the imagination readily forms to itself imaginary zones or boundaries within which human beings, like the mammals, may have been created, and to which their physical constitution is suited; their range being enlarged beyond that of the animals by superior endowments, and greater power, resulting from those endowments, of overcoming the physical obstacles which imprison the most powerful quadrupeds. The mere aspect of the different varieties of mankind comes so strongly in support of this imagination, as perhaps not wholly to leave the mind free from its influence after reviewing the largest collection of facts and the strongest arguments in disproof of it.

A very material element in this whole enquiry concerning man's descent from one or many stocks, is the determination of the singleness or multiplicity of the *species* of men as they now exist, however various the primary difference which so forcibly strikes the senses, and maintains so much power over the mind of observers. The difference of species observed as relates to the phocaceous animals found in the southern and northern hemispheres obviously favours the reception of the opinion that each species was created in the zone in which it is found. The division, therefore, of the human race into two or more species, or its union in one, everywhere to be recognized under adventitious disguises, is most important to the great question which Dr. Prichard has so elaborately elucidated. It is, therefore, most essential that the reader should understand the precise signification of the term *species*, and we give it in the author's own words:—

"The meaning attached to the term *species* in natural history is very definite and intelligible. It includes only the following conditions, namely, separate origin and distinctness of race, evinced by the constant transmission of some characteristic peculiarity of organization. A race of animals or of plants marked by any peculiar character which has always been constant and undeviating, constitutes a species; and two races are considered as specifically different, if they are distinguished from each other by some characteristic which the one cannot be supposed to have acquired, or the other to have lost through any known operation of physical causes; for we are, hence, led to conclude that the tribes thus distinguished have not descended from the same original stock." (P. 105.)

Dr. Prichard observes that the term *genus* was formerly used with the same signification, but that it became, as well as the English word *kind*,

at length to be applied too comprehensively; the expressions ox-kind, dog-kind, cat-kind, &c., comprehends assortments of animals clearly distinguished from other groups, but yet not all of one species. No physical causes are known to us which are capable of producing the different breeds comprehended in the horse-kind or oxen kind, or dog or cat-kind, although their general model has led many to entertain the opinion, founded merely on conjecture, that the different species each of these kinds comprehends were originally identical.

Within the limits of each species there exist *varieties*, produced by the action of external causes, and such varieties are congenital and hereditary.

"*Varieties* are distinguished from species by the circumstance that they are not original or primordial, but have arisen within the limits of a particular stock or race. *Permanent varieties* are those which, having once taken place, continue to be propagated in the breed in perpetuity. The fact of their origination must be known by observation or inference, since, the proof of this fact being defective, it is more philosophical to consider characters which are perpetually inherited as specific or original. The term permanent variety would otherwise express the meaning which properly belongs to species. The properties of species are two; viz. original difference of characters and the perpetuity of their transmission, of which only the latter can belong to permanent varieties." (P. 109.)

Before attempting to follow the author through his enquiry, it is quite essential that clear ideas should be imbibed concerning these distinctions. They are equally necessary to all who have opportunities of gathering evidence on the subject themselves; and we have dwelt more particularly on the preliminary portion of Dr. Prichard's work on this account; for, when we look at the mass of illustrative evidence which he lays before the reader, we see the impracticability of giving more than a brief and general view of it. The question being, whether all the visible diversities of mankind are referrible to varieties only, or arise from differences of species, Dr. Prichard enters first into an extensive physiological and anatomical investigation, and a review of phenomena relative to the origin of varieties in breeds, so as to determine, or attempt to determine, what is permanent and what subject to change in any species; and then upon a survey of the different races of men, in order to determine the changes that have actually arisen in the physical characters of nations or human races; a task of vast extent, and yet full of interest for students of almost every description.

In proceeding to it, Dr. Prichard alludes to the fact, a knowledge of which has arisen from his investigations, that the most permanent characters in the animal kingdom are functional rather than those of structure; and that the principal structural varieties which take place are in the external and less essential parts. Then, directing his attention to the laws of the animal economy, he observes that they are found remarkably uniform in animals of the same species, but vary greatly in animals which, although resembling each other, are yet specifically distinct.

"Thus the wolf and the dog, though proximate species, differ remarkably as to the period of utero-gestation. The she-wolf appears to carry her young ninety days, while the period of gestation in the bitch is well known to be sixty-two or sixty-three days; the former being longer by nearly one-third part than the latter. We are acquainted with no similar deviation in the animal economy within the limits of any one species, and it is very unlikely that such a fact will ever be observed." (P. 115.)

This observation is illustrated by the inference deducible from Dr. Prichard's enquiries concerning the longevity of man in different parts of the world, which appears in all countries to be tolerably uniform, allowance being made for obvious causes of decreased life; whereas, the term of life reached by the longest lived of the simiæ, and those which most nearly resemble man, (as the chimpanze or troglodyte,) is only about thirty years. An equally careful enquiry into the progress of physical development, the periodical phenomena of the constitution, and the state of the natural and vital functions in different races, shows that there are, in these respects, no such differences existing between the different varieties of mankind as to raise the question of diversity of species: the specific temperature, and the action of the heart and pulse, are the same, and the development of the body takes place in similar periods, with some modifications, obviously the effects of climate.

Notwithstanding the capability of procreation found to exist in several instances of hybrids, there is evidently existing a provision against such a result in general, so that the species of animals are kept distinct, and the order and also the variety of animals continues to be universally preserved. Dr. Prichard enquires into the nature of this provision, and considers that it consists of several different circumstances, as the mutual repugnance between animals of different species, and the consequent rarity of mule productions; the infrequency of the progeny being matured; and the general sterility of hybrids; and the difficulty, amounting in a few generations to an impossibility, of keeping up such a stock, even by a reunion with a pure breed. With these facts Dr. Prichard compares the well-known results of crossing or intermixing varieties or races belonging to the same species, and only differing in colour or form; the produce of such crossing being often superior to the parent animals; and he then proceeds to the question as regards the mixed races of the human kind, "whether they are, in the phenomena of their propagation, analogous to hybrid productions or to the blended offspring of tribes which are merely varieties of the same species," (p. 147;) and he adduces some convincing examples of the improvement of mixed races, or races arising from parentage of different colours or tribes, the progeny being found to be more vigorous, and to have a greater tendency to multiply. Dr. P. does not lay undue stress on this part of his argument, but considers it "manifestly favorable to the doctrine that the several tribes of man are but varieties of the same species." (P. 150.)

Another head of the investigation regards the proofs deducible from pathological considerations; proofs necessarily imperfect in the present limited state of knowledge respecting the diseases of animals. But, after comparing the different races of human beings as regards their proneness to be affected by contagious, epidemic, and endemic diseases, Dr. Prichard concludes that the great catalogue of diseases are common to the whole human family, although differing in different climates, and although local circumstances may engender peculiar predispositions to disease in races long exposed to them; so that "the pathological history of different races appears to illustrate and confirm the inference, already deduced from researches into their physiology, that a common nature belongs to all mankind." (P. 160.)

No part of the analogical investigation pursued by Dr. Prichard is

likely to prove more generally interesting than that which touches the psychical characteristics of mankind. It abounds, indeed, with details of a description which no observer of mankind or friend of man's improvement can read altogether unmoved. To many it may be new to learn the virtues of the Bushmen or Hottentots, or the aspirations of the Esquimaux after immortality; and the analogy between the superstitions of the Negroes and some of the doctrines for which much blood has been shed in nations boasting of peculiar civilization, cannot but excite a lively surprise. Sacrifices, the worship of animals, offerings of cattle and of fruits, pilgrimages, oracles, auguries, holy aspersions and inunctions, and all the peculiarities of classical and of modern superstition, are found among the Negroes; and, in the doctrine of the metempsychosis, even the wretched slave enjoys a promise of a renewal of life, supported by which he voluntarily terminates his natural existence, in the hope of being again a happy infant, and of beholding his native land once more. The notices of the conversion of some of the natives of these various countries to Christianity, are deeply affecting; and to them, as indeed to every line of this section, we strongly recommend the reader's earnest attention. Medical students may not require to go over the proofs of the separateness of the human species from the apes, but all may read with improvement, not mental only, but of the feelings, the proofs, not less undeniable, that, however distinguished by colour or some modifications of external structure, whether basking in luxurious refinement or contending in a savage state for a precarious existence,—whether enjoying all the blessings of liberty, and civilization, and knowledge, or condemned to pine in slavery and the grossest ignorance,—the human being is still distinguished above all the animals by moral and mental endowments strictly identical; and, making a reasonable allowance for degrees of development, resulting from climate and from the different stages of civilization, possesses everywhere the same faculties of the mind,—is everywhere agitated by the same emotions, and from every corner of the earth directs the same hope towards a great First Cause, and towards a future existence;—everywhere, in short, affords proofs of similarity of species and a common origin.

The analogical investigation is extended from these topics to the visible or external diversities of the races of man, as variety of complexion, and to those of form and structure, and of diversities observable in the skeleton; and with these are compared the varieties observed in other parts of the creation, as of colour, texture of skin, &c.; and the laws of the transmission of varieties are examined.

Dr. Prichard adopts the division of mankind into three classes, distinguished by the colour of their eyes and hair; as the *Melanocomous*, or black or dark-haired; the *Xanthous*, having yellow, or red, or light-brown hair, and blue or light-coloured eyes; and the *Leucous*, or albinos. He considers the varieties of form and structure as dividing mankind into seven classes, separated by strongly marked lines; among which are peculiar forms of the skull. The first of these classes comprehends those nations which resemble the Europeans in the shape of the skull and in other physical characters; as many nations in Asia, and some in Africa. The second class contains those races which resemble in these respects the Kalmucks, Mongoles, and Chinese. These classes

are denominated by Dr. Prichard as Iranian and Turanian nations; and he altogether avoids the terms Caucasian and Mongolian. The native American nations constitute the third class; and the Hottentot and Bushman race the fourth; the Negroes make the fifth class; the sixth comprises the Papuas, or woolly-haired nations of Polynesia; and the seventh consists of the Alfourou and Australian races.

We find it impossible to condense the numerous particulars relating to this part of Dr. Prichard's enquiry, or to quote any passages which could be satisfactorily presented to the reader disjoined from what goes before or follows them. Each of the classes is separately examined; a very instructive chapter is devoted to the national forms of skulls, and another to the form of the skeleton. The comparative stature of different races, and the laws which govern the transmission of varieties are also considered. All these portions of the work require to be carefully read, as upon their evidence the whole conclusion of the analogical enquiry rests.

The conclusion (with which the first volume terminates) is, that the various colours of the different races of mankind do not present obstacles to considering all the races as descended from one stock; the counterparts of them being found in most tribes of domestic animals. We might even expect much greater varieties in man than in animals, taking into consideration the greater variety of circumstances, physical and moral, to which he is exposed, in the greater range of regions over which he can wander, and wherein he can support existence. Nor do the remote correspondences maintained by some writers to exist between the skeleton of the negro and the orang impede this view of such variety; for, in the animal kingdom, analogous circumstances are observed, as in particular breeds of dogs, which resemble the wolf in structure, and in other instances. It may yet be asked by some of his readers, Dr. Prichard observes, if these phenomena of variety depend on similar causes in mankind and in the lower animals; and also whether they are more permanent in man than in the lower tribes. The answer to these questions is thus given:

“1. With respect to the causes of varieties, or the circumstances under which they originate, or in connexion with which they may be found more or less uniformly to exist, we are not yet prepared for drawing any conclusions. It will be the object of the succeeding parts of this work to investigate the physical history of all the races of men which form the population of different countries. In the course of this investigation, it will appear how far their physical characters are found in connexion with particular influences of climate and situation; whether or not they have local relations, and how far they may be connected with peculiarities of habit and the manner of life. At the conclusion of this enquiry, the proper place will be found for entering, with a prospect of success, on the consideration above suggested.

“2. The enquiry which regards the permanency of varieties is the most difficult investigation which the physical history of mankind presents; and those physiologists who have maintained the original diversity of races, have rested their argument entirely on this ground. This subject also will, as I trust, be elucidated in the succeeding parts of my work, in which I shall endeavour to trace by ethnographical researches how far the peculiar traits of different races are constant, and in what degree they have deviated from the original or prevalent character of each tribe; and to discover examples, if any such exist, in which important alterations of figure and complexion have originated within the limits of history. In

adverting briefly to the comparison of different species in this particular point of view, we may observe, that varieties in the tribes of animals are very different in regard to the constancy of their transmission. In some species they are much more regularly handed down to the offspring than in others: this is a well-known fact in relation to the vegetable tribes, and it has been already noticed and illustrated by Mr. Knight and other writers on the propagation of plants. In animals the same difference is observable: in certain cases varieties are continually springing up, and they as speedily disappear. Perhaps the sheep may serve for one instance of these more variable tribes, in which likewise the varieties which arise are more likely to become again lost. In certain species, varieties are, as it would appear, produced with greater difficulty; and in these, when once generated, they continue with greater permanency. In some instances it is not improbable that modifications in the form and texture of parts, originating but rarely, become in future time constant and invariable characters. We have, however, in all instances sufficient evidence that the same law of hereditary transmission prevails in every tribe, by which qualities belonging to individuals, such at least as are congenital, have a tendency to preserve themselves in propagation, and to become appropriated to whole progenies. This is the principle on which the existence of permanent varieties depends; and we have already found sufficient evidence of its agency, both in human races and in many of the tribes of animals and plants." (P. 373.)

Our anxious desire not to misstate an argument pursued through a volume has induced us to quote this passage at length; and the reader will gather from it the nature of the contents of the volume, yet unpublished, which is to succeed it.

In connexion with the negative evidence of the unity of the human species, drawn from the fact that no remarkable instance of variation is found among mankind, to which a parallel may not be found in the lower orders of the creation, Dr. Prichard reminds us, in conclusion, of the evidence deduced in the course of his enquiry in the earlier parts of his volume: these have been already noticed by us, and, deferring further notice of the subject until the appearance of the second volume, we think it is scarcely necessary for us to assure the medical student that, for a philosophical view of the whole question of man's origin and varieties, as far as human knowledge can throw light upon either, and for various and interesting information, industrious enquiry, careful reasoning, and just conclusions, he will find no work superior, and few works equal to that which has occupied our attention in this article. Dr. Prichard's fame has long been spread far beyond the limits of his profession and nation, and the well-earned honours he has gained both abroad and at home reflect back lustre upon both.

ART. V.

An Essay on the Origin and Nature of Tuberculous and Cancerous Diseases. Read to the Medical Section of the British Association, on the 23d of August, 1836. By RICHARD CARMICHAEL, M.R.I.A. &c.—Dublin, 1836. 8vo. pp. 56.

THE facilities now afforded for the diffusion of every kind of medical information, whether good or bad, new or old,—whether the matter is intended for the benefit of the profession or of the public, of the individual who writes or sells it,—should operate as a powerful stimulus to all

medical societies and associations, to exercise, in their judicial capacities, the strictest supervision over the claims of those who profess to enlighten their members, and, under their authority, the profession generally. Indeed, we are not aware of any duty of public bodies more important than that which imposes on such of them whose object is the advancement of medical science, the severe but just scrutiny of opinions or doctrines, either new in themselves, or contrary to those which are generally received as established on the principles of the best applied inductive philosophy. Every contribution brought forward, either to increase the number of established facts or to illustrate any particular doctrine in medicine, should, when its intrinsic value shall have been estimated, but not till then, receive their approbation, and be considered worthy of being recorded in the archives of the science.

Among the numerous subjects daily brought forward by the industry and zeal of medical men, there are some which are of such a nature that very little precise knowledge can be obtained respecting them. They embrace ultimate facts, around or beyond which our philosophy wanders but does not reach them. There are others, still more frequently submitted to our understandings, which assume as obscure and unintelligible an aspect as the former, from the incomplete, inaccurate, and unphilosophical manner in which their phenomena have been observed, and the false inductions sought to be established on such premises.

Under this head we feel ourselves compelled to include the subjects of the paper whose title precedes these general remarks. Although we have been long acquainted with the pathological doctrines advocated by Mr. Carmichael on the "origin and nature of tuberculous and cancerous diseases," and have perused the present illustration of them, we confess that we feel as if he had rather added to than aided in removing the obscurity which we were happy in the prospect of believing was becoming daily less and less, through the scientific investigations of other pathologists on these diseases.

To those who have had opportunities of studying pathological anatomy, more especially the heterologous formations, which comprehend the tuberculous and cancerous, a very few remarks will suffice to point out the fallacy of the doctrines maintained by Mr. Carmichael; and this we shall do by showing, 1st, that our author's researches are incomplete and inaccurate, and, consequently, that his doctrines are untenable; and, 2dly, that he confounds together diseases of an entirely different nature, and therefore has thrown much confusion over the pathology of the diseases which he has attempted to illustrate.

The present advanced state of pathological anatomy, the progress of which has been so rapid and fruitful of late years, requires of him who advances a new theory founded on the doctrines of this branch of medicine, to furnish all the evidence derivable from this source, at least, in support of it. That Mr. Carmichael has not done this in support of his views on the origin and nature of *tubercle*, is too obvious. His description of tubercle appears to have been almost exclusively taken from the phenomena which he supposes it to present in a *single* organ, viz. the lungs. Our author certainly does speak of tubercle in other organs and regions of the body, but he gives us no description of this morbid product in situations in which its physical characters are not

obscured by the minute structure of the parts, and the intermixture of tissues which do not belong to it. He has committed here the same error which has led so many pathologists astray on this subject, and created for so long a period so much uncertainty and discrepancy of opinion on the nature of tuberculous matter. It was from this cause chiefly that Laennec dignified this substance with the name of *tissue*. But the more accurate and extended researches of Cruveilhier, Andral, Lobstein, &c. threw strong doubts on the legitimate application of this term to tuberculous matter; and those of Dr. Carswell have clearly and satisfactorily demonstrated that it is an amorphous product, essentially composed of an unorganizable substance, consequently having no form but that which is impressed upon it by the influence of the mechanical and physical conditions under which it happens to be placed. The descriptions and delineations of this pathologist, given in his work on the "Elementary Forms of Disease," of the tuberculous matter in different organs, in order to show the modifying influence of these conditions, have fully convinced us, and we are sure every impartial and scientific enquirer, that the name of *tissue*, *entozoon*, or any other appellation implying organization and life in this substance, involves an hypothesis which has neither fact nor analogy in its favour. We feel assured that if Mr. Carmichael will forget what he has imagined he has learned from his examination of tubercles of the lungs, and look at this morbid product in the pelvis of the kidneys, ureters, fallopian tubes, cavity of the uterus, and other hollow organs; or in artificial cavities, such as those formed in bone, in lumbar abscess, or in lymphatic glands, in all of which situations this substance occurs in masses of various extent, and presenting all the characters which pathologists regard as constituting the *type* of this product, he will agree with us that he has hitherto been strangely deceived; for he will perceive here nothing like "semi-transparent grey vesicles," or "regular compact masses like grains of shot." He will only perceive a cheesy-looking substance of various consistence, having no *elementary* form, even when examined in the microscope. It is merely in juxtaposition with the surface which had secreted it, or lies detached from it like so much foreign matter or refuse, which the lining tissues could not appropriate for the purposes of nutrition. We agree with Mr. Carmichael, that tubercles "have no connexion by means of vessels with the surrounding tissues," because the facts just stated prove this beyond the shadow of a doubt. But the same facts prove, as we have already said, something more; for, as every morbid product must, as regards its distinctive characters, be essentially the same in every organ in which it occurs, tuberculous matter in the lungs must be the same in nature as that in any of the other organs to which we have alluded; and, since in these it presents no *elementary* form, no *texture*, or *vascular* relationship, the legitimate induction would be, were the fact not already proved by actual observation, that it can form no exception to the rule in the former organs.

We feel no disposition to follow Mr. Carmichael in his speculation on the Entozoa, in order to substantiate the claims of tubercle to a place among these animals; but we cannot avoid remarking that he has much less philosophy on his side than those who have maintained the hydatid and cystic origin of the heterologous formations. Mr. C. commits, we

think, a very serious mistake in not making a distinction between two things, the one possessing *vital properties*, and the other a *distinct or separate animal existence*. Had he claimed for tuberculous matter the possession, in a low degree, of some vital property, it might perhaps have been considered as only a matter of words; but, when he insists on its being in possession of an "independent vitality," that it is a "parasitic animal, vesicular, hollow, or opaque," (for he is not clear on this point, or rather thinks it immaterial whether the animal be *hollow* or *solid*!) we confess there is a singular lack of proof; so much so, that we are sure no zoologist would ever think of admitting any such contributions to enlarge the boundaries of his already vast domain of animal existences, even although Mr. Carmichael very humbly asks only for the "last link of the chain in the last class of animals."

But we have, perhaps, gone too far without having laid before our readers Mr. Carmichael's definition of tubercles, and his description of their anatomical characters: the following is the definition:

"In one word, it is my opinion," Mr. Carmichael says, "that they are beings possessing a vitality independent of the animal in which they are lodged, except in so far as that animal affords them, 1st, the organic particles of which they are formed, and, 2d, the nutriment which they imbibe by their own innate powers."

The following is the description of their anatomical characters:

"Tubercles, as I have stated already, have no connexion by means of vessels with the surrounding tissues in which they are imbedded; they are commonly found in small regular circumscribed masses. They at first, generally before they undergo any transmutation, have the appearance of semi-transparent vesicles; even those that are opaque, on a close examination, I have often found to be hollow; in fact, they are thickened vesicles or cysts" (P. 21.)

We may observe here, that what has been hitherto considered and described by pathologists as tuberculous matter, is, according to our author, "the dead substance of the dead and softened" vesicle, cyst, or entozoon. Now, although we think that we have already shown the fallacy of the definition and description of the anatomical characters of tubercles, such as we have quoted it from Mr. C.'s essay, we cannot avoid stating that his definition is a mere assumption, which can derive no countenance from the anatomical characters of the supposed animal to which it is applied. He does not even afford us the satisfaction of telling us what means he employed to ascertain their anatomical characters. Indeed, he is not, as we have already said, very clear on this point; for he talks of them being semi-transparent vesicles or opaque vesicles, and concludes by saying that they are in fact thickened vesicles or cysts; nay, he is determined to have them animals, whatever appearance they present, even should they resemble grains of shot; for he adds, by way, we presume, of removing every possible objection, "I do not see why their solidity should be an objection to their possession of an independent vitality." It need hardly be observed, that such dubious language and such loose reasoning is unworthy of serious consideration. A pathologist claims the attributes of vitality and an independent existence for a thing which he cannot bring before our senses under any definite form! or, rather, which he represents as possessing no essential elementary *material* character!

But we have dwelt too long on this part of our subject, and shall cast

a glance at other evidence, which Mr. Carmichael conceives sufficient to prove the possession of vitality in tubercles, viz.—1st. “they preserve themselves from those changes to which all dead or inanimate animal matter immediately enters when subjected to moisture and a temperature above the freezing point;” and, 2d, “as long as they themselves retain life, they do not occasion any stimulus or disturbance in the parts in which they have their nidus, to throw them off.” Now, we shall only briefly observe, that the first part of the evidence brought forward by Mr. Carmichael in proof of the vitality of tubercles, is a gratuitous assumption, and besides, granting, for the sake of argument, that tubercles do not undergo decomposition for a long period (say for many months), this of itself would be no proof of their being in possession of vital properties and life. *Dead* animal matter, when subjected to the influence of moisture and a temperature above the freezing point, does not undergo decomposition, or any other disorganizing process, so rapidly as Mr. Carmichael supposes. Masses of inspissated mucus, albumen, and fibrine are long retained in cysts without suffering such a change; and soups, fish, and meat of various kinds, are preserved in hermetically sealed vessels for a long period, subjected to moisture even in warm climates, without undergoing any very perceptible alteration. Hence tubercles may be unorganized or inorganic substances, and yet be so situated as to suffer no alteration from such agents. With regard to the second part of the evidence in support of the vitality of tubercles, it may also be characterized as an assumption, without a single proof in support of it. We might assert the contrary,—viz. that tubercles do irritate and disturb the parts in which they have their nidus,—with equal claims to be believed. But this is not the point at issue. It is contended that they do not, so long as they *retain life*, occasion any stimulus or disturbance. Now, we have been accustomed to believe that the possession of life was the most essential means towards the doing of mischief among animals, as well as among men. All we know of intestinal worms has taught us and our patients the reverse of Mr. C.’s opinion; and the shepherd would not be persuaded that his sheep stagger and die because of the death of the entozoa which he knows are lodged in their brain. We have been informed of death succeeding to repeated convulsions produced by the presence of an *ascaris lumbricoides* in the ductus communis choledochus of a boy, and of a large *cysticercus cellulosa* in one of the lateral ventricles of the brain of a female. But, because entozoa, and morbid formations of various kinds, may be found in the body without our even having been able to suspect their existence during life, are we to conclude that they produced no morbid excitement, no modification of innervation, secretion, or nutrition? most assuredly not. Do we not meet with marked traces of the remains of pericarditis, peritonitis, pleuritis, with chronic abscess, caries of bone, nay, tubercles in different organs, even in the *dead state*, in individuals in whom the usual symptoms were either absent or so imperceptible as to escape our most careful scrutiny? Under these circumstances it is hardly necessary to observe that the production of irritation can be no test of the presence or absence of vitality. It occurs in living tissues submitted to the contact of bodies or substances, organized or inorganic, under a variety of circumstances which we cannot appreciate; and, as it often escapes our cognizance when it does occur, it would be equally insubstantial and delusive

to employ it as a means of determining a character so important as that sought for by our author.

There are several points in Mr. Carmichael's essay in reference to the formation of tubercles which we had intended to notice; but, as we have already exceeded the limits which we had originally assigned to these observations, we shall only allude to one or two mistakes which he has committed by a misconception of the authors whose opinions he has criticised. In order to support his own theory, Mr. Carmichael endeavours to show that the opinions of Drs. Carswell and Clark are at variance with their own statements, regarding the nature of what are commonly called scrofula and tubercular phthisis. Whoever has read the admirable works of these two authors on tubercular diseases, viz. that on "Tubercle" of the former, and that on "Pulmonary Consumption, &c." of the latter author, cannot have failed to perceive that the terms *tubercular cachexia* and *tubercular diathesis* are employed generically, to embrace a group of diseases *originating* in a peculiar morbid condition of the economy, either congenital or acquired, the specific anatomical character of which is the formation and presence of an unorganizable substance, in various organs of the body, named tubercle. Phthisis pulmonalis, tabes mesenterica, scrofula, struma, are the diseases comprehended under this generic term, because all of them originate in the same general morbid condition of the economy, and because in all of them the same morbid anatomical product is constantly found at a certain stage or period of their progress. They constitute species and varieties only in so far as the organs, systems, tissues, &c. affected, differ in different cases or individuals. We cannot comprehend Mr. Carmichael when he says that Drs. Carswell, Clark, and Todd confound *scrofula* and *tubercle*, and that they argue for the identity of the two; for the two former of these authors, as we have already shewn, do no such thing. They do not maintain that *scrofula* is identical with *tubercle*; for *scrofula* implies the disease; tubercle, its substantive product. Scrofula, or the tubercular diathesis, may exist without the presence of the latter. Hence we speak of scrofulous glands as indices or manifestations of the tubercular diathesis, but not as tubercles; although actual anatomical observation has shown that such glands, either *before* they have suffered much enlargement or inflammation, or *after* they have been for an indefinite period the seat of chronic inflammation, always contain a greater or less quantity of tuberculous matter.

The only other misinterpretation on the part of Mr. Carmichael to which we shall allude, is in reference to the influence of inflammation in the production of tubercle. "How will Dr. Carswell reconcile," says Mr. Carmichael, "the two following passages?" at page 267 we read as follows 'Under such circumstances it would be absurd to ascribe the origin of tuberculous matter to inflammation;' and after arguing, (continues Mr. Carmichael,) the identity of scrofula and tuberculous diseases, we find, at page 259, the following observations:—"inflammation of any organ may be followed by the deposition of tuberculous matter in that organ in the manner in which we have already explained. We have frequent examples of the subcutaneous glands of the neck, and submaxillary

* Encyclopædia, [Cyclopædia of Pract. Med.] vol. iv.

glands, becoming tuberculous after an acute attack of inflammation, although previously neither enlarged, indurated, nor otherwise diseased." We are surprised that Mr. Carmichael should call upon Dr. Carswell to reconcile statements the meaning of which is so obvious, and so consonant with the doctrines which this pathologist entertains on the nature and origin of tubercles. Dr. Carswell has, we conceive, throughout all his writings on this subject, consistently maintained, and satisfactorily demonstrated, that it would be absurd to ascribe the origin of tuberculous matter to inflammation; whilst, at the same time, he has no less satisfactorily explained, and, we think, beautifully illustrated, the manner in which this pathological state operates locally, as a *remote* or *exciting* cause of tubercular depositions. Believing, as Dr. Carswell does, that tuberculous matter is separated by a process of secretion from the blood, he considers that the *localization* of the disease, or *presence* of this substance in a particular organ, or portion of an organ, is not only frequently determined by the supervention of inflammation, but would not, in many cases, take place, had this local morbid condition not occurred. Hence he does not admit that inflammation is necessary to the formation and deposition of tuberculous matter, but that, as it gives rise to an accumulation of blood, and consequently to an increase of secretion, in the part which it affects, it is frequently followed by the deposition of tuberculous matter; that change of the constitution, termed tubercular diathesis, *previously existing*, without the modifying influence of which, the products of inflammation would have been those by which it is characterized in other or ordinary circumstances, viz. coagulable lymph, or pus.

We have now briefly to advert to that portion of Mr. Carmichael's essay in which, as we have stated, he confounds together diseases of an entirely different nature. We allude to his disquisition on the nature and origin of carcinomatous diseases, which he numbers in the same family with the tuberculous, because he has long since also classed them amongst the entozoa. Our remarks on the opinions of our author as to the claims of tubercle to such a rank in the scale of created beings, must serve as an apology for our not entering again upon this subject: for, although there are several forms of carcinoma which possess an organized structure, and might therefore give an air of probability to some such theory, nobody, who wishes to distinguish one thing from another by a name expressive of a specific difference in their relations to each other, will ever think of calling carcinoma by any name, or attaching to it any idea signifying an animal existence or member of the family of entozoa. We shall just quote Mr. Carmichael's description of carcinoma as a specimen of the extent and accuracy of his knowledge of what pathologists call the *anatomical characters* of a disease.

"There is in every carcinomatous structure two distinct substances. One is a hard cartilaginous mass, which admits of being injected; the other is of the consistence of brain, or a medullary substance, which does *not* admit of being injected. The latter I esteem the true entozoa, or parasite; the former, i. e. the cartilaginous part, I look upon as the barrier which the surrounding tissues throw up to insolate the parasite."

We should like to know what such pathologists as Andral, Cruveilhier, Lobstein, and Carswell would say of this description of carcinoma. We

do not pretend to possess a minute knowledge of the anatomy of the disease, but we have examined it sufficiently often to feel ourselves justified in saying that we have never before seen such an imaginary and erroneous representation of it in print. We admit that carcinoma is composed of two distinct substances, an analogous and a heterologous; the former consisting of cellular, cellulo-fibrous or fibrous tissue, the other of the peculiar substance of the carcinomatous formation: and that these exist in various proportions, and under a variety of modifications of their physical and physiological properties: but when we are told that, contrary to the evidence of ocular demonstration, again and again confirmed, one of these substances which Mr. Carmichael chooses to call cartilage is organized, because it admits of being injected, and that the other, or medullary, is not organized, because it does *not* admit of being injected, we must not only object to the accuracy of such statements, but authoritatively pronounce them to be the very reverse of the fact. For, *cæteris paribus*, of the two substances which enter into the composition of a carcinomatous tumour, the medullary possesses the greatest number of blood-vessels. So rich in blood-vessel is this substance occasionally, that it is almost as red as blood; and this not from hemorrhage, but from the presence of the aggregated multitudes of the fine capillary vessels which constitute a part of its organization. Medullary sarcoma, or fungus hæmatodes, is as obviously organized as the brain or cerebral substance which it resembles. The vascular element of the one, like that of the other, is maintained and accompanied by fine cellular or filamentous tissue, from which the peculiar substance of each may be removed by ablution, and the degree and extent of their vascular organization more accurately estimated. The pathologists whose names we have already so frequently quoted all agree in this important fact regarding the structure of the forms of carcinoma to which we have alluded; and, indeed, no one who has ever practically examined this point can entertain any other opinion. With regard to the vascularity of the *cartilaginous* substance (which we beg to notice as a discovery of Mr. Carmichael's), which admits of being injected, we leave it for the consideration of anatomists, who have hitherto found this, we believe, more than they could accomplish.

We must now take our leave of Mr. Carmichael's essay; and, if the tone in which we have treated it should appear to carry with it more than merited censure, we seek no other grounds of justification than those we have already offered, viz. the importance of the subjects, the novelty of the views, and the incomplete, inaccurate, and unphilosophic manner in which they have been investigated, and offered for the instruction of the profession. The author's rank and standing in the profession, and his acknowledged reputation as a surgeon, give an importance to his views and opinions, whether for good or evil, which claims the attention of the guardians of the press. It is for this reason that we have bestowed so much notice on this pamphlet; looking to the eminence of the author rather than the value of the work.

ART. VI.

Essai sur la Philosophie Médicale, et sur les Généralités de la Clinique Médicale; précédé d'un Résumé Philosophique des principaux Progrès de la Médecine, et suivi d'un Parallèle des Résultats de la Formule des Saignées coup sur coup avec ceux de l'ancienne Méthode, dans le Traitement des Phlegmasies Aigues. Par J. BOUILLAUD, Professeur de Clinique Médicale à la Faculté de Médecine de Paris.—Paris, 1836. 8vo. pp. 426.

An Essay on Medical Philosophy, and on the Generalities of Clinical Medicine, &c. By J. BOUILLAUD, &c.

THE professed intention of M. Bouillaud in this work is to impart to the study of medicine the exactness of physical science; an attempt which he acknowledges not to be new, but which he conceives himself enabled to make with more success than his predecessors. Of the desirableness of reducing the practice of medicine to fixed and invariable principles, no doubt can be entertained; but a question may very fairly be entertained as to the sufficient advancement of medicine for such an attempt at present; and we believe the general conviction of reflecting men to be so decidedly unfavorable to a design so ambitious, as to make the perusal of works professing to maintain it somewhat distasteful to them. We must acknowledge such to be our own case; and, although we admire the extensive views and eloquent declamation of M. Bouillaud, and can conceive his subject expanded over twenty volumes instead of one, we fear we should close the twentieth as we close the first, without being converted to his belief.

M. Bouillaud's work is divided into four parts, which might have formed four distinct essays; the first appearing to be a kind of history of medicine; the second, a sort of clinical guide; the third relates to semeiology, and the theory of medicine; and the fourth is a mere comparison between recent and ancient methods of curing acute inflammations.

The most interesting portion of the historical division of the work is, as might be expected, that which relates to the cultivation of medicine by some of the modern French physiologists and pathologists. This is prefaced by a very discursive review of former systems, ancient and modern; which we shall pass over, and come at once to the epoch of Bichat and Pinel. These two great reformers of medicine appeared immediately after that great political revolution which it was prognosticated would overthrow the arts and sciences. Of the opinions of these celebrated men M. Bouillaud gives a clear and animated account, not without great interest to the medical philosopher or student.

To Bichat, he says, belongs the glory of having conceived and executed the plan of a new anatomy, that of certain immediate elements of composite organs, to which he gave the name of *General Anatomy*, or the anatomy of general systems, or of systems the generators of organs, (*des systèmes généraux, ou générateurs des organes.*) He professed to be a follower of Stahl, whose doctrine he modified with the power of an original genius. He departed from him in not ascribing all the vital phenomena to a single principle, that principle to which Van Helmont

had given the name of *Archæus*, and which Barthez had named the *vital principle*, and Chaussier the *vital force*. This principle Bichat regarded as purely an imaginary abstraction; whilst the object of his own doctrine was, to analyze with precision the properties of living bodies; to shew that every physiological phenomenon was ultimately related to these properties, considered in their natural condition, and every pathological phenomenon derived from their augmentation, diminution, or alteration; that every therapeutical phenomenon had for its principle the return of these properties to their natural type; and to fix with precision the circumstances in which each was called into action; to distinguish, in physiology as in medicine, what proceeded from each, and consequently to determine exactly the natural and morbid phenomena governed by the animal or produced by the organic functions; to indicate when the animal sensibility and contractility, and when the organic sensibility, and sensible or insensible contractilities, were concerned. He repudiated the application of the laws of the physical sciences to explain vital phenomena. Discarding the affinities of chemistry, and the elasticity and gravity of physics, he employed in physiology the terms sensibility and contractility; always making an exception in favour of those cases in which, as with regard to the eye or ear, the same organ was the seat of vital and of physical phenomena.

According to the views of Bichat, then, sensibility and contractility are the causes of all the phenomena observed in organized bodies; and all diseases are but lesions of these properties, and are numerous in proportion to the number of vital properties with which organized bodies are endowed. He considered nervous disorders to arise from lesions of animal sensibility; and convulsions and paralysis to consist of an increase or diminution of animal contractility. In all the class of fevers, and all gastric affections, he looked upon disturbance of the organic contractility as manifest; and he ascribed tumours, marasmus, and increased exhalation, to disturbance of the organic sensibility, and in the insensible contractility corresponding to it.

Bichat's system involved him in an evident difficulty. He considered the seat of the vital properties to be the solids; and, as the phenomena of disease were but alterations of the vital properties, his views seemed to exclude the fluids from consideration, as regarded the phenomena of disease. Yet he was far from overlooking the importance of the fluids, and knew that, although their influence had been over-rated, they were often at least the vehicle of morbid matter, especially such of them as were destined to the composition of the organs; and that, although in all diseases the solids were most palpably affected, the cause of the affection was not invariably in themselves, he concluded that a pathological doctrine, based upon exclusive solidism or fluidism, was as unreasonable as a physiological theory admitting only the solids, or only the fluids.

To adapt to these views his doctrine of vital properties, M. Bouillaud seems to think that it was necessary to admit the vitality of the fluids themselves, which Bichat certainly did, although the philosophical reasonableness of that opinion was doubtless sufficient to recommend it, independently of all views of convenience.

Bichat applied his doctrines respecting the organized elements of the body, and the simple tissues, and general systems, to the analogies and

distinctions of maladies; especially local maladies, acute or chronic. He especially excepted the greater number of fevers, which, simultaneously affecting all parts, he did not consider capable of having much light thrown upon them by the anatomy of systems. Against this exception, however, M. Bouillaud, an ardent follower of Broussais, lifts up his voice in a succession of foot-notes, asserting, of course, the localization of fevers themselves. Since all maladies, reasoned Bichat, are but alterations of vital properties, and each tissue differs from others in respect to these properties, it is evident that it must also differ in respect to its maladies; and in every organ composed of different tissues, one may be diseased, and the rest intact. As every organized tissue has a uniform disposition, and, whatever its situation, is identical in structure and properties, its diseases must be everywhere the same. Whether the serous tissue forms the arachnoid, the pleura, the pericardium, or the peritoneum, it becomes inflamed in the same manner, dropsical effusions follow, whitish miliary tubercles are formed, &c. He applied the same observations to the mucous tissues; and he extended the application from the history of diseases to their consequences, as shewn by morbid anatomy. In accordance with his general views, he maintained that no medicament, not even a poultice, acted physically on the frame, but solely by modifying the vital properties. His therapeutics, although evidently too exclusive in principle, seemed indeed to derive recommendation from the errors to which he opposed them. He pointed out with the force of truth the erroneous employment and denomination of many classes of medicines; such as the term *deobstruants*, which originated in the theory of obstructions; incisives, which were directed against a presumed thickening of the humours; *astringents* and *relaxants*, which belonged to the doctrine of *strictum* and *laxum*; and *refrigerants* and *calorifiants*, which regarded the excess or defect of animal heat. But, although he pointed out the weakness of theories of this kind, he was scarcely less at a loss than other reasoners to devise a classification of medicines founded on their real mode of action; although he enounced, as a general principle, that all medicines had for their object to bring back the vital forces to the natural type from which they had departed in disease. Thus, in inflammations, he says, as there is exaltation of the organic sensibility and insensible contractility, we must diminish this exaltation by poultices, fomentations, baths, &c.

Amidst the truths contained in these theories of Bichat, and which were received with enthusiasm, and hailed as brilliant discoveries founded on the ruins of what the reflecting reader may perhaps consider to have been nearly the same theory in other forms, it is not difficult to perceive great defects. The doctrine of vitalism might be more intelligible, or less open to perversion, than that of a *vis insita*, an *impetum faciens*, an *archeus*, a *vital force*; but, as M. Bouillaud truly remarks, the terms organic sensibility, and organic contractility, sensible and insensible, are deficient in clearness, and the impropriety of excluding physical laws from consideration in reasoning on the functions of the human body will now be universally admitted. The name of Bichat will, however, be imperishably remembered in connexion with his Treatise on the Membranes, his General Anatomy, and his Researches on Life and Death; works which exhibit all the characteristics of an original and philosophical mind. To

his labours, and to his example, M. Bouillaud ascribes much of the honour of having formed a Dupuytren (whom he rather extravagantly calls the *Napoleon* of surgery), a Cruveilhier, a Richerand, and lastly, Broussais.

The other great name on which M. Bouillaud dwells with just admiration is that of Pinel. This accomplished physician proceeded to the task of reforming and arranging nosological medicine, prepared by an ample acquaintance with its history and actual advancement. During the many years in which his popular *Nosographie Philosophique* was undergoing several successive editions, the gradual improvements effected by different cultivators of the science did not escape his attention; and it ensued that he both felt and acknowledged the increasing difficulties in the way of making a satisfactory arrangement of diseases. Of his five great classes, Fevers, Inflammations, Hemorrhages, Neuroses, and Organic Lesions, the first was surrounded with new difficulties every time that he brought his consideration to the subject, and the last comprehended affections exhibiting a disparity almost defying all attempts to effect a regular distribution of them. The researches of Rœderer and Wagler concerning mucous fever (*la fièvre muqueuse*), those of Sarcone on the glutinous fever, and his own, concerning gastric and meningeal fevers, tended to shake the foundations of his first class altogether; and he is supposed, even in his earliest publications, to have had a tendency to localize fevers, or to deny the essentiality which the modern French school so utterly and vehemently rejects. He states his principal design to have been to present purely historical descriptions of the entire course of maladies, and abstract notions of general pathology, which he considered to constitute medical science. Pitcairn, one of the mathematical sect of physicians, had enunciated a problem in these terms,—a disease being given, to find the remedy; and in the place of this somewhat presumptuous question, Pinel wished to substitute what he considered a problem more circumscribed and reasonable,—a malady being given, to determine its real character, and its nosological place. The modern reader will feel inclined to condemn both these problems; the first as savouring of scholastic trifling, the second as placing too far back the first object of all medicine, the curing of diseases.

In the mean time, the great subject of fever was continually undergoing further elucidation, and the observations of Prost, in a work entitled *Médecine éclairée par l'ouverture des corps*, and the celebrated monograph of Petit and Serres on *Entero-mesenteric* fever, are alluded to by M. Bouillaud as having particularly tended to overthrow Class I. of the *Nosographie*; whilst Class V., or that of Organic Lesions, sustained as severe an assault from M. Broussais's famous publication on Chronic Inflammations. Between this distinguished pathologist and Pinel there ensued a lively war of opinion. Of this, and of the opinions of Prost, of Laennec, of Petit and Serres, and others who materially contributed to correct those views of fever which overlooked local lesions, more especially of the intestinal canal, the reader will find a very interesting account in the sections of M. Bouillaud's work entitled *Décadence du Système de Pinel*, and a subsequent one entitled *Ecole de M. Broussais*.

The doctrines of Broussais have undergone such abundant discussion during the last fifteen years, in the journals of this country, as to render

it unnecessary to lay before our readers any long account of them. Qualified for the task by habits of observation and boldness of character, he found the demolition of the artificial nosologies of the time no very difficult undertaking; and it was his ambition and his boast to establish a system of medicine not founded on the arbitrary classification of symptoms, but on anatomy and physiology. He maintained that the symptoms should be referred to the organs of which they indicated the disorders, and that it should also be enquired why and how the organ was affected, and in what manner it was possible to relieve the affection. One of his leading propositions related to the subversion of the essentiality of fevers, and their localization in the digestive canal, of which they were affirmed to be an acute inflammation, seated in the mucous or follicular membrane. The universality of this occurrence has been repeatedly disproved; but the observation of it was important, and even the undue, because too general, weight attached to it by M. Broussais tended to effect material improvement in the management of fevers by the continental practitioners. For the next great division of his attack upon established systems he selected M. Pinel's fifth class, or that of Organic Lesions, which he pronounced to be a *chef d'œuvre* of contradictions and inconsistencies, in which syphilis, gangrene, scorbutus, cancer, dropsies, diabetes, worms, &c. were ranged together: he argued that syphilis was not more truly disorganizing than phlegmon, catarrh, and dysentery; that cancer and tubercles were connected with chronic inflammations; and that, in short, the term organic lesions, like the older term of cachexies, was but calculated to flatter the ignorance of physicians, and prevent their ascending to the true causes of such affections. Although he admitted that sometimes degenerations and transformations were insensibly effected without any marked preceding pathological state, he considered that the mechanism of these obscurely-wrought changes might be illustrated by those which were produced in a manner more evident. He ascribed, we have said, generally, tuberculous and cancerous degenerations to an inflammatory process, not analogous to that of phlegmon, but existing in the white vessels, or a lymphatic inflammation, which he subsequently denominated an irritation; and he urged the study of *irritations* in the different tissues, in order to the comprehension of a state distinct from phlegmon, and yet not asthenic, spasmodic, or engorged, terms which he denounced. This idea of irritations he acknowledged to have deduced from Bichat, and he expressed himself in no measured terms concerning those who did not comprehend it. He also denied the dependence of scorbutus on mere debility, referring it to an alteration or corruption of the blood.

Perhaps, on concluding the perusal of M. Bouillaud's account of his great master's opinions, and their triumph over opposition, the reader may be not a little inclined to wonder at the small number of new ideas which seem required, on which to found the reputation of a reformer of medicine; and, with us, to look back upon the fierce controversies which attended the downfall of *Pinelism* and the uprising of *Broussaisism*, as too much resembling the verbose disputes which preserve the life of medical debating societies. Yet never were partisans more zealous, never were opponents more bitter, than those created by M. Broussais's physiological doctrine. Some of his pupils, filled with one idea, saw irritation everywhere, whilst others overlooked it where it existed. The

practical consequences were numerous, and not always of a fortunate character. Every unprejudiced observer of Parisian practice must have seen the evil consequences of the excessive application of leeches to the abdomen, conjoined with too strict a diet. The least tenderness of the epigastrium under rough pressure has often been held an imperative reason for applying numerous leeches; and, the superficial tenderness being found to be increased the next day, their repetition has followed again and again, whilst gum-water and starvation did the rest. In vain the pallid face, the prominent malar bones, the imploring look, the earnest prayer for food. Much complacency was indulged in the contemplation of the march of maladies, and if death did not follow, the patient was regarded as one who had defrauded the zealous pupils of a dissection. But the patient seldom escaped with life, and beds were emptied, especially in the children's hospital, with a frightful rapidity. We speak of what we have seen, and the mortality of the wards at the time to which we refer afforded horrible confirmation of these impressions. On the other hand, if no tenderness was found on pressure, and if the chest presented no morbid indication, the followers of Broussais, of whom they were many who denied the name, appeared incapable of recognizing a simple fever. It could not be a simple fever, for their master derided the notion of such essentialities: it was therefore, after a second exploration, set down as an imaginary malady. The unsteady step, the oppressed countenance, the loaded tongue, the quickened pulse, were disregarded. There was no thoracic or abdominal inflammation; nothing could be localized; it was an imagination. But fever held on its natural course, despite of theories untrue to nature, and in a few days the tongue grew darker, the brain was deeply disturbed, the hands trembled, and the Broussaian exclaimed, with an air of discovery, that the patient was affected with "*fièvre grave*," a sentence which death very soon confirmed. So true it is, that whatever madness affects the leaders of medicine, it is the patients who suffer. The exclusive theorist walks proudly round the wards, and behind him "*mocking his state*" is the figure death, who alone gains by the errors of human conceit in medicine. Such errors were generally committed by the most enthusiastic admirers of the great physiologist. Other errors were committed, as of old, by his opponents, who continued to treat debility in fevers as an entity, to be combated by tonics and stimulants. It was lamentable to perceive how few were free from the folly of seeing nothing but debility, or nothing but inflammation. Some few, however, there were, who endeavoured to fix upon the truth, which lay betwixt the contending parties, and they shared the abuse of both. The old school blamed their rashness, the Broussaians pitied their timidity; the old school lamented their proneness to innovation, the new deplored their attachment to exploded prejudices. The sagacious few were denominated the Eclectics; and their ranks appear to have gradually diminished. Among the converts to the doctrine of the non-essentiality of fevers under all circumstances, M. Bouillaud names Andral, Rostan, Lallemand, Boisseau, Roche, Bégin, Rayer, Dugès, Billard, Chauffard, and Scoulteten; whilst on the opposite side appear alone the names of Laennec and of Chomel, the latter, however, well known to be one of the best practitioners in France, and a physician of the calmest judgment and the most remarkable candour.

In a work published by M. Chomel in 1821, he condemned the unmeasured opinions of those who, observing an inflammatory state of the intestinal mucous membrane in numerous cases of fever, maintained that fever could not exist without it. The result of his own observation was, that in some cases there was no appreciable alteration found in the intestinal canal on examination after death in fevers; that in others there was only slight redness, very limited in extent; but that in the greatest number, that is to say in about three-fourths of the fatal cases, ulcers were found in the intestines, near the ileo-cæcal valve, and the corresponding mesenteric glands were red and tumefied; and he regarded these appearances as being very often the effect, and very rarely the cause, of the symptoms of fever. It is difficult to conceive an opinion more judiciously expressed; and although M. Bouillaud lays great stress on a more recent statement of M. Chomel, (in 1824,) that follicular inflammation of the intestines is so common in fevers that in five years he had not found an exception, we think this assertion may be admitted as regards the fatal cases, to which alone it refers, without committing M. Chomel to the doctrine of which M. Bouillaud is so anxious to see him a supporter. In truth, M. Chomel still maintains, that fever may exist *without* lesion of the intestinal follicles.

The controversial temperament of M. Broussais seems in some degree to have caused his opponents to withhold the meed of merit actually due to him. If not the discoverer, he at least saw and maintained the importance of the doctrine which taught the frequent implication of the intestinal canal in inflammation during fevers; but in his zeal to overthrow the belief of the essentiality of fevers, he carried the doctrine beyond the limits supported by general experience. Referring to the laws of life, he ascribed the greater number of diseases to irritation; but he expressly denies ascribing *all* diseases to that cause: his doctrine, he says, is *not* a doctrine of irritation, but a physiological doctrine, resting not on the exaltation of life, but on all the modifications of which life is susceptible, of which, however, he declares exaltation to be incomparably the most frequent. Whatever may occasionally have been his language, his declaration at the conclusion of his *examen des doctrines* is framed in a philosophical spirit: he does not pretend, he says, to offer a perfect work; he sees that others will go farther than he has done in determining the symptoms characteristic of lesions of each of the primitive tissues; and he declares that he shall see their efforts with the liveliest satisfaction. It cannot, indeed, be doubted, that his originality, energy, and active observation have exercised a powerful influence over the cultivators of all parts of medicine. We speak of the French cultivators more particularly, for they have left no part of the wide field of medicine untilled or unimproved. Exact observations have succeeded to vague generalities, and numerous organic lesions have been most usefully traced to the morbid actions in which they originate; and with these improvements, practical medicine has nearly, if not entirely, kept pace.

It was our intention to notice other portions of M. Bouillaud's work, but we are deterred from the task by the common-place matter which meets us in almost every page, and by the author's excessive diffuseness. It is difficult to imagine any description of readers who would derive pleasure from our dilating on the history of clinical institutions, or on

“the sciences in general, especially that of observation;” or on “the particular genius of medicine;” or on the “spirit or genius of invention, observation, and experimentation;” on the various methods of drawing up cases, or on the “theoretical, logical, and systematic spirit applied to facts in medicine;” or on the generalities of etiology and pathological anatomy, diagnosis, prognosis, and therapeutics; which subjects are extended over more than four hundred of the author’s pages.

Altogether, we are compelled to say that this discursive work of M. Bouillaud might have remained in his portfolio without any detriment to his reputation. It is not easy to recognize in its various parts an accordance with its title and professed object. The author goes out of his way, especially in his numerous notes, to discuss extraneous matters, such as the Newtonian theory, phrenology, political influences, and other topics; evincing the fluency and vivacity of the writer rather than any higher qualities. We have mentioned his fixing upon M. Dupuytren, whose real character presented an union of the man of genius and the savage, the denomination of the Napoleon of surgery; but this is still exceeded by his proclaiming M. Broussais, who is also doubtless a man of genius, but the most furious of medical sectarians, the *Messiah* of Medicine. We cannot but consider these things as alien to that Medical Philosophy which M. Bouillaud professes such anxiety to establish.

It is, we are well aware, on the second part of his work that M. Bouillaud especially plumes himself. He repeatedly refers to it as containing his system of philosophy. To us it appears no more than a clever compendium of clinical directions, not remarkable for their novelty, and very perplexing by their number. Each section is, moreover, treated at such length that we fear the number of those who read the work through will be very small indeed. We cannot get rid of the suspicion that the book is made up of works composed at different times, and with different objects. The First Part is evidently an *Eloge* of Broussais; the Second, a Clinical Manual; the Third, a Treatise on Semeiology and Therapeutics; and the Fourth, a little Essay on Bloodletting. The medical philosophy of all this, we fairly confess, surpasses our comprehension. We can discern no stream of thought, no train of reasoning, no directness or singleness of purpose; and if we are permitted to draw a conclusion from the absence of all modern names and references, except of and to the author’s countrymen, we should say that his information in no degree warranted even his professed undertaking.

ART. VII.

1. *The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery and on the Diseases of Women and Children. Illustrated by numerous Plates.* By DAVID D. DAVIS, M.D. M.R.S.L., Professor of Midwifery in the London University, &c.—London, 1836. Two Vols. 4to. pp. 1294.
 2. *Operationslehre für Geburtshelfer, in zwei Theilen.* Von Dr. HERMANN FRIEDRICH KILIAN, ordentl. öffentl. Professor der Geburtshülfe und der Geburtshülftichen Klinik an der Rheinischen Friedrich-Wilhelms Universität, u. s. w. *Erster Theil: die Operative Geburtshülfe.*—Bonn. 1834, 1836. 8. 956 s.
- Instructions in Operating for Accoucheurs, in two Parts.* By HERMANN FREDERICK KILIAN, M.D., Public Professor in ordinary of Midwifery, and of the Midwifery Clinic, at the University of Bonn, &c. *Part First: Operative Midwifery.*—Bonn. 8vo. pp. 596.

THE general subject of these two works being the same, the date of their publication the same, and as they both emanate from professors filling very important chairs in their respective countries, we have thought it best to join them together in one article. We shall, however, notice each separately, without reference to the other; only endeavouring, as much as possible, to avoid repetition of the same subjects, and striving to make one half of the review the complement of the other. The critical reader may draw his own conclusions respecting the relative merits of the two publications.

I. With many of the separate parts of the first work on our list, no doubt, most of our readers are acquainted. It being at length completed, we hasten to pay it that degree of attention which an undertaking so comprehensive, and emanating from such a quarter, must demand. The rank and station of the writer, his experience as a teacher, and his connexion with some of the first lying-in charities in the metropolis; the size and extent of the work, and the time occupied in its completion,—all tended to excite our expectations, and led us to look for a very perfect system; one that should constitute an established book of reference to our practitioners at home, and be regarded abroad as containing an accurate account of British practice; and thus tend to exalt or depreciate, as the case might be, in the minds of our foreign neighbours, the obstetric department of medicine in this country. Under these circumstances, therefore, we feel called upon to examine this book with a greater degree of strictness than a work appearing under less imposing auspices would demand.

Although Dr. Davis has, to a certain extent, disarmed our criticism by his modest profession, that his work contains merely “a moderately extensive view of the elements of obstetric medicine,” yet we feel we should ill discharge the duty we owe our readers, if, accepting this as a sufficient apology for imperfections, we were to omit to notice any thing which should appear to us defective, or hesitate to point out what we deemed errors, either of principles or practice. The author's estimate of his performance will be best understood from his own words: he says that “he has furnished the student, by the direct instruction of his book,

with the means of acquiring an accurate knowledge of the very important department of medical science of which he treats; and gentlemen already established and experienced in practice, with facilities, by its numerous references, for acquiring a more substantial and profound acquaintance with any division, or with the entire range of subjects of which it treats, than is usually considered necessary for the general purposes of the profession." This, then, must be the touchstone by which it is to be tested.

In the arrangement of his work, Dr. Davis adopts three great divisions of his subjects: the *first part* including the anatomy, physiology, and pathology of the genital organs; the *second*, pregnancy and its consequences, with the puerperal state; and the *third*, the diseases of children.

Without entering into the work at all, we cannot help being struck with the unequal space he apportions to these different subjects: to the first he devotes 815 pages, to the second 393, and to the last but sixty pages. Indeed, Dr. Davis himself appears to have foreseen the objections likely to be raised to the manner of his arrangement in this respect, as he apologises for "the subjects of his work not having received that uniform equality of illustration to which a treatise of this kind might have possibly laid claim." We confess we think that the author would have better executed his task had he gone deeper into some of his practical points, and had, in other instances, avoided wandering into merely curious discussions, or relations of isolated cases of very rare diseases. We have an example of this kind of digression in his account of diminution and excess observed in the hairy covering of the mons veneris, where we have two pages (35, 36,) drawn from the ephemerides, Buffon, and M. Chabert, the fire-king, of very questionable, and certainly extraneous matter; while, on the other hand, he discusses the subject of pruritus in a few lines, and omits even an enumeration of several of the varied states of disease of which it is symptomatic.

The second chapter contains a brief general description of the fœtal, young, and adult pelvis; with a parallel between the pelves of the sexes, an explanation of the measurements and diameters of the pelvis, and a disquisition on the use of pelvimeters. Our author maintains, what all men of experience must admit, that the accoucheur's finger and hand are the best pelvimeters; but we cannot assent to all the recommendations in the following passage:

"The point of the forefinger is to be carried to the promontory of the sacrum, and made to rest on the sacral projection, whilst the portion of it that crosses the arch of the pubis should be accurately marked with the nail of the index-finger of the practitioner's other hand. The intermediate distance between the finger so indented and its point resting on the promontory of the sacrum, will, of course, be the measure of a line drawn from the promontory of the sacrum to the apex of the arch, the thickness of the symphysis pubis inclusive. Making an allowance for this thickness, and for the greater length of the line thus obtained, by reason of its greater inclination than of the conjugate diameter, the length of the latter line, the conjugate diameter of the brim of the pelvis, is determined with considerable accuracy. Should the practitioner's index-finger prove too short to reach the promontory of the sacrum, presuming on its being of the ordinary length, and on its being passed up in a proper direction, it would then be a matter of generally safe inference that the pelvis was of sufficient capacity in the direction of the conjugate diameter. To ascertain the existence of room on either side, the whole

hand is to be introduced into the vagina, and carried up edgewise, with the index-finger in front, and the little and ring fingers behind, to the lateral portions of the pelvic cavity, so that the points of the fingers shall rather more than clear the brim. Should there be found sufficient room on either side of the diametrical line for the hand so introduced to maintain the parallelism of its fingers,—i. e. to be there without being obliged to ride over each other,—then it would be a matter of conclusion that, with sufficient space in the middle, added to the ordinary space on either side, there would be found ample room for the descent of the child's head into the general cavity. The practitioner then would have to pass his hand along the other side of the pelvis, and subject its dimensions to the same test. If indeed the hand was carried up along and nearly in contact with the lateral parietes of the pelvis, and room was found there for three fingers to be together in moderate parallelism, the conjugate diameter being at the same time of sufficient length, it would be competent for the medical attendant, as a general rule, to infer favorably of the dimensions of such a pelvis. The transverse diameter of the outlet may be accurately enough ascertained for practical purposes, by merely introducing the hand into the pelvis, and placing the thickest and broadest part of it transversely across the vulva, so as to occupy the line of the short diameter. The breadth of an average sized hand across the metacarpal joints is very nearly three inches and a half. A pelvis, therefore, sufficiently large to permit the hand to occupy easily, or even without sustaining any serious pressure, the lateral boundaries of the outlet, the position just described, would be sufficiently ample for the safe passage through it of a well-grown fetal head at the full period of gestation." (P. 21-23.)

We conceive that the directions for introducing the *hand* so freely into the vagina are both unnecessary and improper; and, indeed, this practice can never be generally tolerated. Examinations with the finger must be *made* sufficiently correct to give a right result.

We have long been of opinion that, in Dr. Hull's theory of the distinctive deformities produced in the pelvis by rickets and mollities ossium, he had generalized far more than the true nature of the case warranted: we have, in our own collection, preparations which justify us in arriving at this conclusion; preparations exhibiting the triangular figure which he ascribed to mollities ossium, but which we know to have been the result of rickets. We feel no hesitation, then, in coinciding so far with Dr. Davis in his opposition to this doctrine, although we may hesitate in admitting with him that the pelvis, after rickets, possesses the power of regaining a very fair share of symmetry. (P. 32.)

In Dr. Davis's anatomical descriptions, he is sufficiently minute without being tiresome. He has, however, fallen into an error in the description of the locality of the urethral orifice, which able anatomists have fallen into before him: he has described this aperture as midway between the clitoris and the anterior edge or commissure of the vulva; whereas, in the natural state of parts, it is much closer to the edge of the vulva than to the clitoris. What has, no doubt, given rise to this mistake is the fact that the vaginal margin at this part is sometimes full and prolonged, either from relaxation, congestion, or some other cause.

In treating of the diseases of the labium, our author does not object to incisions in cases of infiltration of this organ; and recommends stimulating in preference to soothing applications for the treatment of abscess in it. He reports (p. 52,) a case of protrusion of the urinary bladder into the left labium, which was seen in company with Mr. Lawrence. If a more accurate investigation of this case had proved it to be the bladder

that constituted "this cyst containing watery fluid," we should have esteemed the case as one of extreme interest: we are not, however, satisfied that the data, at least as given by Dr. Davis, quite authorize this conclusion; and what tends to increase the doubt is the author's own statement, that "no urine could be forced out of the urethra by pressing the tumour with the hand, nor by that means could any sensible reduction be made in its body." In a case of this avowedly doubtful character, and more particularly when another eminent surgeon had arrived at a different conclusion, as to its nature, from that of the author and Mr. Lawrence, the public should have been furnished with more accurate means of forming a true estimate of the case. There is no mention made of any attempt to trace the tumour to the seat of the bladder, nor explanation as to the exact place where it escaped.

The observations on Varix are interesting, and well worth the reader's attentive perusal.

Sixteen pages are very profitably occupied in discussing Syphilis and Syphiloid Diseases, as they attack the female. They are treated under three heads,—Inflammation of the genital surfaces, with discharges; gonorrhœa and warty fungoid excrescences; and ulcers. Dr. Davis evinces that he is a decided mercurialist; and, in advocating the mercurial treatment, makes a statement which certainly does not correspond with our experience on this subject,—namely, that he never has seen secondary symptoms occur, or syphilitic children given birth to, after full courses of mercury.

The author has been at much pains to investigate some of the more rare female diseases, which hitherto have attracted but little attention from our practical obstetric authors. We have an example of his success in this respect in his observations on carunculous or hydatid growths in the urethra and bladder; in the treatment of which he has recommended the introduction of a cylindrical instrument, made of ivory, with a bulbous extremity; calculated, by the pressure it produces, to destroy the fungoid growth.

In those embarrassing cases of contraction or banded state of the vagina, the effect of inflammation most commonly produced in a former delivery, the accoucheur is well aware of the benefit derived from incising the bands with a bistoury, and that this simple process often prevents the occurrence of most extensive lesions and lacerations, both in the recto-vaginal septum, perineum, vagina, and uterus. To our astonishment, Dr. Davis condemns this practice, and appears to rely altogether, in such cases, on the use of the lancet. Depletion we esteem as a most important adjunct in the case in question, where depletion is admissible; but we would warn the young practitioner, if he values the safety of his patient, to be cautious how he adopts the recommendation of omitting to divide these bands; and we do this with a firm and painful conviction pressing upon us of the mischiefs that have occurred in our own practice from such an omission. Dr. Davis gives a case of adherent walls of the vagina, in connexion with this subject, with accumulated menstruous secretion beyond the point of union, in which the patient was resigned to her fate. Surely, some operation might have been undertaken in a case of this kind, in the present state of surgical and obstetric science. He also reports an unaccountable but most interesting case of spontaneous

membraneous formation, occurring in a very short time after sloughing of the recto-vaginal septum, and completely closing up the aperture. His account of sloughing of the bladder, with vesico-urinary fistula, is very imperfect; and no notice whatever is taken of the benefits to be derived from the use of the actual cautery, as recommended and practised by Dupuytren in these distressing cases.

The practice recommended by Dr. Davis of free general depletion in cases of vaginal inflammation, the effect of pressure of the head in labour, we esteem as more than objectionable; and, if generally acted on, we have no hesitation in stating that the most injurious effects must result from it. Every practitioner is aware that the strongest tendency exists, in inflammation of this organ at this time, to run rapidly into slough and gangrene, and that the great difficulties he has to contend with are the prostration and exhaustion which occur: are these, then, let us enquire, likely to be guarded against or benefited by free depletion? But it may be argued, that if depletion was freely and sufficiently early had recourse to, the gangrenous tendency would be checked or prevented. In answer to this we would say, that those who have watched these cases attentively well know that the mischief is done before the delivery is effected, and that, so far from reducing our patients afterwards by depletion, our energies are, from the train of symptoms present, required imperatively to be directed towards maintaining their strength by such means as are safe and admissible.

Dr. Davis's remarks on the subject of Entero-vaginal Hernia are judicious.

"It might be very possible for a practitioner, not much experienced in matters of this kind, to mistake, for instance, a case of hernial descent for prolapsion of the vagina. The practical result, of course, would be, that he would content himself with merely introducing a pessary into the vagina, without previously effecting the reduction of the hernia; and of such a blunder the consequences, it is obvious, might be very serious."

We have ourselves known strangulation of the intestine to occur unsuspected under such circumstances; and Professor Guntz (*De Hern. Libell.*) relates a case in which the attending surgeon destroyed his patient by plunging a bistoury into a hernial tumour, under the impression that it was an abscess. From the comparative rarity of this disease, it is not well understood by the profession at large.—Garengeot's case, recorded in the *Mem. de l'Acad. Roy. de Chir.*, t. i., was the first that drew the attention of medical men to the subject. It occurs only at the anterior and posterior part of the vagina, and is generally observed as the result of effort when the parts are in a state of relaxation after delivery. Boyer treats of the possibility of hernia occurring by the separation of certain of the vaginal fibres of the external tunic, the protruded gut effecting the distention of the internal tunic only. Dr. Davis reports a case of this nature, attended by himself and Dr. Sims, replete with interest; and, although he occupies seven pages in the recital, we were gratified and pleased with every line of it. The sound practice adopted, and the happy results under the most unpromising circumstances, render it a case particularly meriting the attentive perusal of all obstetricians. The accident did not occur, as it usually

does, after pregnancy. The patient was freely depleted; great care was taken in effecting, as soon as possible, the reduction of the tumour, and retaining it, when reduced, by the application of a properly adapted pessary, and by guarding the horizontal posture for a sufficient time. The patient was perfectly cured, and there is every reason to suppose that the separated fibres were reunited.

In leaving this subject, upon which we certainly should have quoted our author at length, had we not such a crowd of other matter presenting itself to us for notice, we must say that we look upon the observations upon entero-vaginal hernia and cystocele as among the best contained in the work. The accurate and discriminating attention devoted to its diagnosis, the instructive cases recorded, the judicious quotations, (if we except the extreme length and repetitions in one case,) and the sound practice adopted, whether connected or unconnected with delivery, fully justify our good opinion; and we refer our readers to the original with a firm conviction that they will derive from it both gratification and instruction.

Dr. Davis's account of menstruation is very interesting, although we cannot avoid feeling a little provoked at the space devoted by the author to combat such absurd theories as that of Roussel, who denied menstruation being a function with which the human female was originally invested, ascribing it, as our readers are no doubt aware, to an effort on the part of the vessels of the womb, to relieve the circulation from a repletion, the effect of luxurious living, such as we see in hemorrhoidal discharges or hemorrhages in the male. No doubt, also, by some, who take a hasty view of the subject, he will be pronounced credulous in the opinions he supports with regard to serotine menstruation. It is but too much the practice with professional men to deny the possibility of the existence of any physiological or pathological matter, because its occurrence may happen to be opposed to their preconceived ideas, or may not have occurred within the sphere of their observation, however restricted this may have been. Dr. Davis, however, coolly, and (we think) philosophically, enquires into this subject. He weighs the testimony of those who have treated of it; he examines the reported cases, and enquires how the symptoms and states hinge upon each other, in establishing or invalidating their accuracy. Whilst he admits that an immense majority of the cases of sanguineous uterine discharges, recorded as sustained by women in advanced life, are the result of diverse diseases; yet, from the authority on which many of the cases rest, and from the subjects being hale, vigorous women; from their first menstruation having generally occurred in an advanced period of their growth; from their having lived in country districts, on homely fare, and being actively occupied; from the discharge having regularly and uninterruptedly recurred, from youth to old age, &c.; our author is of opinion, (and in this we agree with him,) that it is more easy to suppose that women might live and enjoy vigorous health to an advanced period of life, subject to the condition of the protracted performance of a natural function, than that they should survive many years, and enjoy vigorous health, subsequently to their becoming the subjects of frequently recurring hemorrhages; or, in other words, of a positively diseased state of the uterus, usually attended with extreme danger even to life itself.

In the portion of his work allotted to the consideration of the Influence of Menstruation on the Health, &c., our author evinces a strong anxiety to prove that the cessation of the menstrual secretion is attended with no peculiar risk towards the female. This opinion he founds principally on Finlaison's Reports. The statistical information possessed on this, as on most other physiological subjects, is still very much in its infancy, and very contradictory results have been arrived at upon it. Thus, although Mr. Finlaison, in his table of the comparative proportion of male and female mortality kept at Ostend, arrives at the conclusion that, between the ages of forty and forty-five, only 7,094 females die for 11,107 males; yet, in the calculation of the rate of mortality of the government annuitants, during the same epoch, from forty to forty-five, 6,959 males die for 6,889 females: but, again, the excess is in favour of the female mortality, according to Quetelet's and Smit's returns, in the country districts of Belgium; for here, between forty and forty-five years of age, 8,536 females die for 5,975 males. With this extreme uncertainty and contradiction in statistics, then, we feel that, as yet, the conclusions arrived at by our author are not justifiable; nor do we think that, even upon his own showing, and granting the correctness of Mr. Finlaison's reports, he has made out his case. Suppose the greater mortality of males at the age corresponding to what has been hitherto esteemed the critical age of female life were established, we are fully aware that there may, and do, exist, in the physical constitution of the male, causes explaining this excess of mortality in him also at this period. Neither does the statement that there is no increase in the proportion of mortality in the female at this epoch, compared with the other periods of female life, go to disprove the danger attending it in the female; as she is now freed from the influences peculiar to her previous state of constitution,—as childbearing, and morbid uterine and menstuous functions. For a sufficiently appalling catalogue of the morbid conditions incident to mere disordered menstruation, we cannot go beyond that furnished by Dr. Davis himself, whilst treating on this subject, at page 298.

In our author's anxiety to establish a parallel between menstruation in the human female, and the œstrum of the lower animals, he rather involves himself in a dilemma. In a preceding part of his work, his efforts were directed to prove that the menstrual secretion was a natural and periodic relief of a state of vascular congestion or phlogosis, and that a period of time equal to the interval between two menstuous flows was necessary to effect the perfect reestablishment of this state of plethora. Now, the œstrum is the period of phlogosis, or congestiveness, at its height; and it is during this, as is well known, that in animals impregnation always occurs; whereas, the human female is most liable to impregnation when, according to Dr. Davis's already-expressed opinion, there must be the greatest want of phlogosis, viz. just after the local plethora has been relieved by the completion of the menstuous discharge. If the human female had been most liable to impregnation just before the occurrence of the menstuous flow, then would Dr. Davis's parallel have been perfect: as it happens, however, to be directly the reverse, and our author will not give up his analogy, he smooths off his difficulties by stating that, after menstruation, a sufficient amount of vascular congestiveness and phlogosis continues to ensure the presence of the required

susceptibility of impregnation! And, as if determined to carry through this self-evident contradiction with a bold hand, he records his opinion in most imposing capitals.

In the treatment recommended by our author for Amenorrhœa, as well as Menorrhagia and Leucorrhœa, we feel little hesitation in pronouncing him much too indiscriminate in his administration of mercury: we also question much the judgment of his exhibiting so "full a charge of it" as he recommends. And this we do without denying its applicability as a remedial agent in certain properly selected cases. Its administration has been attended with benefit in the hands of other physicians; it was used, we are told, incidentally as a purgative, in a case of amenorrhœa, so far back as 1685, and was found to produce an immediate flow of the menses. Its efficacy in this respect is also proved in a case reported in the seventh volume of Simmons' Medical Journal; and the authority of Pitcairn, Heister, &c. is referred to, as justifying its use in leucorrhœa. Two out of the three cases which Dr. Davis reports, in proof of its efficacy in amenorrhœa, appear to us far from conclusive upon this point; several months having elapsed in both before the reestablishment of the uterine functions; whilst other and avowedly powerful emmenagogues were had recourse to in the interval. By submitting the first of these ladies to a course of mercury, and keeping up "a mild salivation for four months," which produced, as we might have expected, such a state of the gums and teeth as to require "the services of the dentist," as well as by the use of cinchona, columba, and decoction of the woods, her health was so far established that her mother pronounced her looking as well as she had done for many years, and she acquired a very good share of appetite.

"After a residence, however, of five months in the metropolis," continues Dr. Davis, "she experienced no sexual change, nor even any perceptible intimation of a return of her menses. From London she went to Tunbridge Wells, where she remained about ten weeks. Whilst there, *she took six ounces daily of a mixture consisting of five parts of Griffith's tonic mixture and three of compound decoction of aloes.* Before she left the place she menstruated sparingly once, and from that time forward she entirely ceased to be the subject of her former ailments, and rapidly became possessed of a greater degree of health and strength than she ever possessed before. The catamenial function was perfectly reestablished."

The other case adduced by Dr. Davis, in proof of the utility of mercury, is scarcely less equivocal. In it he "suggested the propriety of making a trial of the remedy exhibited with such advantage in the case just related."

"The mouth was made slightly sore by three doses of calomel and opium, in the proportion of four grains of the former to one and a half of the latter. The influence of the remedy was kept in the mouth and in the system for four entire months. At the end of that period the patient considered herself in many important respects improved in her health. The catamenial function was not, however, satisfactorily established until *after several months subsequently.* When that long-wished-for event happened, the *patient was taking, in considerable doses, the compound mixture of iron and the compound decoction of aloes.*"

Now, whilst we are free to admit that a third case, which is reported, may have been benefited by the mercurialization, we must say that we cannot conceive how any unprejudiced person could ascribe the reestablishment of the uterine functions in the other two cases to the mercury

so perseveringly administered. We dwell not upon these cases with a view to put Dr. Davis out of conceit with a favorite plan of practice, but because we foresee the baneful effects likely to result from the adoption of his views by the junior or inexperienced members of the profession. A great opprobrium in obstetric medicine has been the empirical treatment hitherto adopted, and unnecessarily practised, in cases of amenorrhœa. It has been the object of our best practical writers and teachers, to inculcate the necessity of abstaining from unnecessary or mischievous interference in these cases, and to establish enlightened and philosophic views by examining the functional derangements of the uterus in relation to their effects as well as causes, and to treat them, as we do other diseases, upon well-defined physiological and pathological principles. Under such circumstances, we cannot but fear that, when a writer of Dr. Davis's rank and character comes forward with (to use his own words,) his "one great emmenagogue,—perhaps the greatest actually existing,—mercury," and recommends such a medicine to be administered so unsparingly, and with so little discrimination, he may do an infinity of mischief. He certainly states that judgment and discrimination are necessary in its administration; he also alludes to the treatment being discreetly and skilfully managed; but he at the same time tells us that it is "the greatest emmenagogue actually existing;" "that he does not think much of the restricted mode of administering mercury;" "that it is idle to hope for benefit without the excitement of some fever;" "that it must be exhibited in sufficient quantity to produce ptyalism, and a perceptible soreness of the mouth;" and that the average period of this *mild* constitutional affection should extend at least fourteen or fifteen weeks.

"This powerful agent," says Dr. Davis, "is only proper in chronic cases, where the balance of the different actions of the body is become much disturbed, and where it may be a matter of considerable probability that organic disease may already be about to commence its dangerous operations." But this description embraces about nine-tenths of the cases of amenorrhœa daily presenting themselves for treatment! How rarely does a physician see any but a chronic case of amenorrhœa? How seldom does he meet it, whether in the relation of cause or effect, without disturbance of the different actions of the body? Above all, if organic disease be present or apprehended,—and we must suppose Dr. Davis to include cancer equally with other organic diseases,—is mercury, a medicine notoriously producing mischievous effects in cancer, one that he would seriously recommend our having recourse to?

We cannot, therefore, avoid raising our voice against the empirical practice here inculcated, as attended with the grave and serious objections of being an unnecessary, painful, hurtful, and possibly even a fatal method of treatment, in cases, the great proportion of which are simply and easily managed, upon ordinary and well-understood pathological principles.

With the exception of his unsparing exhibition of mercury in its treatment,—and to which the strictures just made in the case of amenorrhœa are equally applicable,—we look upon that part of our author's work which treats of Leucorrhœa as generally practical and instructive; but more particularly that portion of it which refers to the production of

leucorrhœa as the effect of pregnancy and mismanagement in labour. To this we would particularly request our readers' attention. Dr. Davis seems to place much confidence in tincture of cantharides in this affection; and, although he does not go to the same full doses as Dewees, he recommends pushing the medicine sufficiently far to secure its specific effects on the genito-urinary organs. He speaks of fifty drops three times a day as his maximum dose; and this we esteem safer than the plan recommended by its great advocate, Robertson, whose recorded cases exhibit such a reckless perseverance in this painful method of treatment. We do not think our author devotes the attention merited to local treatment in this disease; he makes no allusion to Dr. Jewel's plan of treatment, which has acquired so much the confidence of the profession, and only mentions nitrate of silver in a cursory, general allusion to vaginal lotions.

Our author is opposed, to a certain extent, to the explanation offered, and the practice adopted, in the disease so well described by Dr. Gooch as the Irritable Uterus. He contends that this disease is, if not actually inflammatory, at least one of no inconsiderable vascular congestion; and that there is, as well as a morbid state of the nerves of the affected organ, a morbid over-distention of its blood-vessels. He consequently considers local depletion as constituting the most efficient part of the practice: for this purpose he applies leeches to the uterus itself. He has not experienced benefit from the use of iron, unless when the irritation depended upon leucorrhœa or painful menstruation; and in the former he prefers ample doses of the carbonate. The warm bath he objects to, from the inconveniences produced by change of posture; being quite as decided an advocate for the protracted and constant retention of the recumbent position as Dr. Gooch. The above means, with mercury to the production of salivation, (the author's sovereign remedy in all cases of difficulty,) he has principally relied upon; having, as he states, employed aperients, narcotics, and other classes of medicine, more as auxiliary than as principal remedies.

Under the head of Peculiar Diseases of Women, variously classed by nosologists, our author treats of Hysteria, Nymphomania, and Sterility. His observations on the first of these subjects are replete with learning, and evince much research on the part of the writer. Although he is at much pains to exhibit the striking connexion existing between this remarkable disease and uterine derangement or disease, as urged by Pinel, Villermay, Pujol, and others, yet he is himself of opinion that the hypothesis of its origin being in some morbid but unknown condition of the cerebral system, may deserve to be considered the most probable. He devotes much of his materials to prove and elucidate the striking connexion between the feelings and passions (but more especially the all-absorbing one, love), and this disease; and his observations, although to some they may appear diffuse, and even not very pertinent to the discussion of a medical question, seem to us highly interesting, and convey very useful hints to the practitioner in the management of cases most perplexing and of very common occurrence; cases in which moral management, and the exercise of acuteness and judgment on the part of the professional attendant, are often much more important than any treatment of a mere medicinal kind. As a means of effecting an allevi-

ation of the spasms observable in hysteria, Dr. Davis recommends friction, which may be applied with considerable force to the part affected. In this way, rubbing the throat in the globus, as well as the scrobiculus cordis and abdomen, in those cases where spasm of the diaphragm, abdominal muscles, or muscular tract of the intestines, proves distressing, has, according to his experience, produced decided relief.

In proceeding to the general treatment of hysteria, the author seems hardly to act in perfect consistence with his own views of its essential nature; or, at least, to attend to the collateral phenomena in the first place. Being of opinion that few patients menstruate with perfect regularity, and, moreover, that, in the great majority of cases, it originates in some imperfection or disturbance in the performance of the catamenial function; and that embarrassments of the circulation are almost always the very speedy consequence of suppressed menstruation, he recommends the practitioner's first attention to be directed to the state of the circulation. When found embarrassed, or much disturbed and irregular as to its determinations, the most vigorous means for its restoration to its natural and healthy balance must be adopted. There are two great measures, which, if used opportunely, are, according to Dr. Davis, especially calculated to restore the circulation (when disturbed, as here supposed,) to its natural and healthy balance: these are, first, venesection as soon as possible after the application of the cause of suspension of the catamenial function; and, secondly, when necessary, the exhibition of "a moderate charge" of mercury: one sufficient, however, to produce an ascertainable affection of the mouth. For our own part, although we confess we never have been subject to the general dread which prevails in the profession with regard to the abstraction of blood in hysteric patients, where symptoms were such as to require this treatment, yet we feel quite satisfied that Dr. Davis will not be likely to make many converts to his plan of practice amongst British practitioners. We certainly think that he has not done sufficient justice to the class of individuals to which these hysterical patients belong, and how little they appear to promise from a depletory plan of treatment; to say nothing of the likelihood of the benefit to be derived from a course of mercury where, judging from our ordinarily accepted principles of disease, every thing would seem to contraindicate it. This we certainly must observe, that in a recent case, as mentioned by Dr. Davis, unless it were very unmanageable indeed, we would esteem the having recourse to so violent and disagreeable a plan of treatment as mercurialization as unjustifiable and uncalled for; having at our command ample means of controlling or checking the disease on much better terms for our patient. We confess we felt rather disappointed at Dr. Davis, who exhibits so much early research in this article, not bringing his information down to the present day: we find no notice taken of the discoveries in spinal irritation, as connected with hysteria, beyond two lines quoted from authors, both of this and other countries, who have laboured to give a prominence, both in the pathology and practice, to the essential dependence of the disease on disorder of the nervous centres.

We have already remarked upon the inequality shown in apportioning the materials of this book; we are again struck with this fact in observing the unnecessary length of the article on Nymphomania; a

disease which our author himself considers as very rare, and the enquiry into which he pronounces to be more curious than profitable. This strikes us the more forcibly when we contrast it with the article on that most important and frequent disease, dysmenorrhœa, which occupies not two pages, whilst this, on nymphomania, is extended to upwards of forty!

A contrast is drawn between Erotomania, in which there is an entire absence of sexual importunities, and that form of mania more especially characterized as nymphomania. The first is simply intense, all-absorbing love; and often, at least in the first instance, a monomania, although it is liable to terminate in the latter or more deplorable form. Dr. Davis is at great pains to describe most vividly these different affections, and to connect them, as far as he is warranted by pathological investigation, with physical disease. The latter form, nymphomania, has, he says, been generally found confined, either in the relation of cause or effect, with inflammatory or organic disease of the genital organs, but more especially the uterus, ovaries, and clitoris; an opinion with which we cannot coincide, as far at least as the ovaries are concerned, after the statement made by us in the review of Dr. Löwenhardt's work on Oophoritis, in our last volume.

In his observations on Tuberculated or Membrano-fibrous Tumours of the Uterus, our author reports an interesting case, in which he attempted to remove a diseased structure which was contained more within the cavity than in the parietes of the organ. Although his attempt failed, yet the hint is a useful one, and it appears to have been attended with the remarkable benefit of checking the hemorrhage, which had been distressing. The stoppage of the hemorrhage is explained by the cohesion and consolidation of the surface of the tumour with that of the uterus at the part where the separation was affected; the loose membrano-vascular tissue previously connecting which, he looked upon as the seat of the hemorrhage. We were, however, much surprised at finding no notice whatever taken by Dr. Davis of Wenzel's interesting observations and beautiful delineations of these organic uterine structures: indeed, the author seems to be ignorant of the peculiarity of its attacking so markedly certain parts of the uterus, and confining its development to them; a fact Wenzel has so well explained and exhibited.

Where such men as Hunter and Denman have included an inverted uterus in their ligatures, for the removal of polypus, we can properly estimate the caution necessary in this operation. The plan of loosening the ligature, and even removing it when symptoms of an alarming nature occur, as practised and recommended by Herbiniaux, Denman, and others, is very judiciously insisted upon by our author. He does not, however, seem to be aware of the views of Siebold and other continental practitioners as to the absence of vascularity of polypus; or, if he be, he is evidently not a convert to their doctrines, from the plan he prefers of operating upon these cases. He avows himself a supporter of the French plan of applying the ligature merely as a tourniquet, for the prevention of hemorrhage, and removes the tumour with the knife. As we made some observations on this subject in our last Number, on reviewing Dr. Hamilton's work, we shall only further remark, that our author's observations on this subject generally, but more especially in the department

of diagnosis, are highly practical and instructive. Gooch's double canula he seems generally to prefer, although he speaks favorably of Desault's instrument in certain cases of very large polypus.

There is scarcely any morbid growth of the female genital organs that has not been at various times classed under the head of Moles. We esteem the definition of Fernelius as the most accurate and comprehensive: "*Mola est tumor carnosus non in substantia, sed uteri capacitate genitus.*"* The early writers on this subject treated of moles of *generation* and *nutrition* under distinct heads. The prevailing opinion, however, appears to be in favour of their occurrence as the effect of sexual congress, or rather misconception. We perceive Dr. Davis is of opinion that this class of morbid growths may occur in the virgin, although rarely. He does not seem to have consulted Lamzweerde's celebrated "*Historia Molarum*," else he could scarcely have supported so heterodox an opinion. So satisfied was this author as to moles being the effect of vitiated seminal deposit, that, in order to relieve himself from his difficulties of asserted malformation in the virgin, he seriously devotes a chapter to discuss, *An virgo vel vidua ex diabolo possit concipere molam?*

Of the necessity for attending to the diagnosis in these cases, and their resemblance to pregnancy, we may form some idea, when we have on record cases in which the wives of the most eminent medical men have proved the subject of blunders of this kind. We must, therefore, see the propriety and importance of correct diagnosis on this subject; and we confess, under this head, as well as in the case of hydatids generally, Dr. Davis disappoints us. The rules he attempts to lay down in both are unsatisfactory and inconclusive; and the best means of diagnosing between these affections and pregnancy,—namely, auscultation,—in the one instance he omits entirely all mention of, and in the other slightlying and unjustifiably pronounces to be inapplicable.

The author, commenting on the operation suggested by Dr. Marshall Hall, and practised, with different modifications, by foreign surgeons, for the purpose of affording support to the uterus in cases of prolapsus or procidentia of this organ, proposes another operation instead, by which the possibility of any inconvenience from hemorrhage will be obviated, and a sufficient amount of inflammation excited to ensure the readhesion of the parietes of the vagina to their naturally contiguous tissues within the pelvis. Instead of a continuous incision, or incisions through the lateral parietes of the vagina, his idea is that of "passing through the same lateral parietes of the vagina a series or cluster of acupuncturations sufficiently far into the cellular membrane to ensure the effect wished to be obtained from the operation." For this purpose, the author recommends an instrument analogous to that used for cupping, armed with pins or needles, instead of lancets, calculated to make punctures, which should be carried directly through and deeply into the cellular membrane beyond the lateral parietes of the vagina. There is some ingenuity in this suggestion; but it wants, what the other methods possess, the sanction of experience.

The following are the author's directions for the reduction of Ante-

* Lib. vii. Path. cap. 15.

version of the Uterus. After premising leeching, cataplasms, rest, &c., he proceeds:

“The patient should be made to lie on her back, with her breech elevated above the level of the upper part of her trunk, so, as much as possible, to relieve the uterus from the weight of the intestines. The bladder and rectum being previously well emptied, the index and long finger of the left hand, *if long enough*, should be passed high up into the vagina, and beyond the vaginal part of the uterus, where they should be made to exert an effort to dislodge that part of the organ from its preternatural position, by applying considerable force to it from above and behind downwards. If the fingers cannot be made to reach the part of the uterus in question, then a slightly curved instrument, of sufficient length, made of wood, and rounded smoothly into an extremity not unlike that of a common vectis, must be substituted for them. Whilst the effect here supposed is attempted to be produced on the vaginal part of the uterus, another instrument, curved or not, as the case might indicate, but broadly padded at its extremity, should be introduced immediately behind the symphysis pubes, and so applied to the tumour formed by the fundus and body of the uterus as, by a firm bearing upwards of its padded extremity, should effect a perceptible change of position of these parts; or, in other words, such a bearing upwards, acting in combination with the counter-pressure downwards, made, as already directed, on the vaginal portion of the uterus by the other instrument, as should suffice to effect the reduction of the entire organ.”

We would make the same remark on this mode of operating which we made on Dr. Davis's mode of measuring the diameter of the pelvis:—it is too elaborate, too instrumental, too harsh.

We shall not dwell on the article on Malignant Diseases of the Uterus; it is too much occupied with discussions and quotations from other authors on the supposed texture of the disease, to the neglect of remedial or alleviative treatment.—The chapter on Diseases of the Lateral Appendages of the Uterus is scanty, when compared with the general character of the work.—Our author adopts Sir A. Cooper's arrangement of Mammary Diseases, from whom he judiciously quotes so largely as to render this article nearly a reprint of Sir Astley's very valuable work.

We come now to Pregnancy, and its consequences. Dr. Davis considers Blumenbach's views of generation the most rational, and adheres to Hunter's theory with regard to the placenta. But, to our astonishment, we observe that he omits all mention of Baer, and Prevost, and Dumas's important and most interesting experiments and observations.

While reviewing a work which displays so much laboured research, we cannot omit expressing our regret that the section on the Signs and Indications of Pregnancy is so incomplete. The author, speaking of the change of colour and size of the areola round the nipple, says, (p. 854,) “Some people, therefore, lay much stress upon it as an indication of pregnancy; and it may be the *best single evidence* which we possess.” Further on he says, however, “In a small proportion of women it may afford little or no assistance; as in females of very fair complexion, in some of whom no perceptible change of colour takes place, either during pregnancy or even during the puerperal state; whereas, in other subjects, the areola has presented a deepish tinge in the absence of pregnancy, and even in persons who had not been pregnant at any former period. Nursing has always the effect of keeping up the appearance of it.” We feel quite satisfied that too much confidence has been reposed in this evidence of pregnancy; nor are we willing to attach any more importance to it than as a single symptom, which, as a guide to diagnosis, is very

far indeed from being infallible, but which, in conjunction with others, affords some assistance in forming our opinion as to the nature of the case. The excellent observations of Dr. Montgomery, in the *Cyclopædia of Practical Medicine*, are the best yet presented to the profession on this most important subject.

Quickening is referred by the author, with Dr. Seguin Jackson, to the rising of the uterus out of the pelvis, and entrance into the abdominal cavity. Dr. Davis has omitted all mention of Abatement, Ballotement, and even Auscultation! The omission of this latter as one of the means of detecting pregnancy, in a work published at the present day, we cannot account for. Surely, although the author may not have been aware of the more recent labours in this department of medical science by Dr. Evory Kennedy in his own country, Dubois in France, and Hohl and Kilian in Germany, he can hardly have been unacquainted with those of Major, Kergaradec, and Laennec, now many years before the public. We can, from considerable experience, assert it to be infinitely the most satisfactory and conclusive means of diagnosis we possess. We regard this as one great blemish of Dr. Davis's work; and we feel it therefore necessary, in justification of British obstetrical medicine, to state that Dr. Davis's view of this matter constitutes the exception, not the rule, of practice among our best accoucheurs. We take this opportunity of recommending to all not already acquainted with it, the excellent treatise of Dr. Kennedy on this subject.

In describing the operation for reducing the Retroverted Uterus, the author recommends (we think judiciously,) when, "after a time, the fingers may be conducted so high as to be found not long enough to reach the fundus uteri, the passing up of a piece of cane of considerable thickness, with a broad, firm, and finely textured piece of sponge well secured to its top."

In the treatment for Œdema of the Lower Extremities from Pressure, the recumbent position, or keeping the extremities elevated as much as possible, is not mentioned. We doubt how far, where erysipelas is threatening, scarifications, though moderate, will tend to arrest it.

The author reports a very interesting case, as one of a number of important complications of diseased action with pregnancy, at page 887. It is a case of diarrhœa, occurring monthly during three successive pregnancies; it continued on each occasion for seven or eight days, with from fourteen to five-and-twenty copious alvine discharges each day. This case is again recorded (we suppose from oversight,) at page 901, as an instance of the occurrence of some unusual symptoms which have been recognized as signs of pregnancy.

The chapter on Extra-uterine Fœtation displays much research, and is well worthy of an attentive perusal.

In treating of Parturition, the author classifies labours into natural preternatural, complex, and instrumental. He excludes the consideration of time, and bases his arrangement, in the first two, on the nature of the presenting part; in the third, on "the occurrence of any occasional circumstance calculated to embarrass the function of parturition, and compromise its results;" and in the fourth, on the necessity of obstetric instruments for delivery. We shall not quarrel with this arrangement, but proceed to make a few remarks on the practice enjoined. Dr. Davis

advises, when the head comes to distend the perineum, instead of applying the palm of the hand to the perineal tumour, to oppose the whole of our modifying and resisting force to the presenting part of the foetal head, by the application of the points of the fingers and thumb of the right hand. This is a practice not only useful but essentially necessary, as laid down by Denman, in cases where the labour-pains are violent; but we can hardly suppose our author to mean that support should not at the same time be afforded directly to the perineum itself: if such be his doctrine, we must certainly record our dissent. The further directions, with regard to the expulsion of the child, are good; save that he omits the directions given by Dr. Clarke, of Dublin, "of pursuing, with a hand on the abdomen, the fundus uteri in its contraction, until the foetus be entirely expelled, and afterwards continuing for some time this pressure, to keep it, if possible, in a contracted state;" the utility of which practice is so ably and satisfactorily demonstrated by Dr. Collins, of Dublin, in his *Practical Treatise* lately noticed in this Review. We cannot agree with Dr. Davis in his opinion as to the "use of the binder in ordinary cases being very limited," and "in many cases rather questionable;" more especially after the directions he lays down as to the removal of the placenta "in ordinary cases;" calculated, as we consider them, to encourage impatience, and, as a necessary consequence, lead to a meddling interference.

In labour protracted from rigidity, our author shows himself a true admirer of the doctrines of free depletion, and seems inclined to outrival Dewees in the extent to which he carries this practice. We would recommend him to enquire into the plan of treatment adopted by our Dublin brethren in such cases, where nauseating doses of tartar emetic have been found to effect the desired object; thus superseding the necessity for such copious and debilitating bleedings as he and his transatlantic friends advise.

Cases of deficient activity or inertness of the uterus are, the author states, especially to be treated by ergoted rye, in half-drachm doses every ten minutes, till the required effect be produced. This we consider too sweeping a decision, having known, in many instances, the life of the child to pay the forfeit of such indiscriminate practice. We have frequently, in cases under the full action of the ergot, administered even in scruple doses, heard the foetal pulsation lowered from 130 to 50 in the minute, and eventually it has ceased altogether. We are surprised that Dr. Davis has omitted all mention of the benefit, in such cases, derived from the occasional administration of a stimulating enema. Its action may not always be so rapid, but it is surely far more safe.

The distinction drawn between impaction and arrest of the head is concise and good; and our author's observations on the circumstances most deserving of the practitioner's attention during his attendance on cases of protracted labours are sound, and well entitled to a careful perusal: were we to particularize, we would select those on retention of urine.

In breech presentation, where the back of the foetus is directed towards the back of the mother, the author turns the breech round in the pelvis; and if, from disproportion, this cannot be effected by the fingers alone, he recommends the use of the blunt hook. We would say, do not try to turn: the body will always turn of itself before the head enters

the brim, if not interfered with. Dr. Collins states (not alluding to the above practice, but the occasional necessity for instrumental delivery in breech presentations,) that, out of between 24,000 and 25,000 deliveries, but one instance was met with where any instrument was required.

We cannot possibly pass unnoticed Dr. Davis's observations on Twin Births. His introduction of this subject is confused, and calculated to mislead the student; as he commences by laying down rules for the management of those rare cases in which the children become engaged together in the pelvis, in place of impressing upon the mind of his reader the general rules applicable to all twin births. Whilst he very properly recommends the application of a bandage and keeping a moderately firm pressure upon the abdomen during the second labour, instead of directing the rupture of the membranes of the second child as the invariable practice, and most certain means of ensuring the contraction of the uterus, he merely casually alludes to this as what "*might* be usually required;" and this after a previous disquisition on the utility of bleeding, ergot of rye, and *the use of the forceps*. Upon this latter practice, however, the use of the forceps, we esteem his observations as more than objectionable,—we had almost said censurable: let our readers judge from his own words.

"If," he says, "the subject of the case shall have had children previously, the birth of a first child of a suspected case of twins might often be quickened and completed by having recourse to the forceps; and cases of this kind might be made available by a young practitioner, for accustoming himself to the use of that instrument; which, however, he will, of course, be careful to use with proper attention to the precautions to be hereafter detailed on the subject of instrumental midwifery." (P. 1019.)

Such a recommendation as this, coming upon the authority of the professor of midwifery to the London University, we cannot but regard as calculated to produce very serious mischief.

In Labours complicated with Prolapsus of the Umbilical Cord, Dr. Davis recommends turning, or, where this cannot be effected, carrying up the prolapsed portion by means of a thin flexible spatula. We recommend to our readers the observations of Dr. Michaelis on this subject in a recent Number of this Journal.

The section on Convulsions is interesting; nine out of ten, the author says, recover. We rather think this will be found to be too favorable a report. Dr. Davis feels himself warranted by experience in recommending the exhibition of a full dose of opium *after* ample bleeding; and, should the patient not be in a situation to swallow it, an opiate enema of proportional strength. His mind is made up on this *questio vexata*. We could wish he had described the state of the patient where he would give a full opiate. That there will be cases benefited by such treatment we admit, but we cannot entirely assent to the general recommendation, even *after ample bleeding*.

In treating of abortion, the author does not allude to the advantage derived from injections by the rectum in cases where the secundines have been retained, nor the exhibition of ergot; he gives very judicious directions as to the treatment to be adopted, viz. warm water injections into the uterus, when the discharges are becoming foul. In unavoidable Hemorrhage, where the discharge is considerable and the os uteri not

disposed to yield sufficiently to admit of the introduction of the hand, Dr. Davis recommends rupturing the membranes as a means of "suspending uterine hemorrhage," and also of "inducing the action of parturition." That the evacuation of the liquor amnii is frequently followed by an arrest of accidental hemorrhage is well known, but it is not so certain that hemorrhage from an unavoidable cause will be thus checked. The discharge in this latter case is observed to be more profuse during uterine action, and this for obvious reasons, owing to the dilatation of the os uteri, consequent on this uterine action, laying open the mouths of the bleeding vessels: where the membranes have been ruptured, the hemorrhage can alone be stayed by the head, or some other resisting portion of the foetus being firmly pressed against the gaping mouths of the vessels. But in few, if any cases, does the *os uteri continue unyielding so long as to endanger the life of the patient from the repeated losses of blood*; and should not the evacuation of the liquor amnii, on his own showing, be followed by an arrest of the discharge, the subsequent delivery will be attended with much more difficulty to the operator, and increased risk to the patient. We cannot therefore lend our assent to the practice recommended by our author.

In the remarks on hemorrhages after the expulsion of the child, Dr. Davis directs, judiciously enough, the removal of the placenta, but advises it, as we think, in such a careless way as to call for some observation. Surely it is not enough to remove the contents of the uterus under such circumstances; it is equally essential to effect the complete contraction of the uterus. For this purpose he relies on the uterine tourniquet, without alluding to what, in the cases under consideration, viz. hemorrhage from want of uterine action, is found the best mode of ensuring safety to the patient, stimulating, before withdrawing the hand, the uterus, so as to make it by its own action expel both placenta and hand. The uterine tourniquet will be, we have no doubt, a good mode of applying pressure, but we cannot approve of the practice of plugging the vagina after the removal of the placenta, even with the seeming guarantee against the possibility of subsequent relaxation afforded by the uterine tourniquet. We have found, in cases of such tendency to relaxation, the best effects follow on the administration of the ergot of rye; we are surprised Dr. Davis, who recommends it so strongly in labours protracted from inertness of the uterus, and is so satisfied of its power of exciting indolent uterine action, should have overlooked its usefulness under these nearly similar circumstances. In retention of the placenta from hour-glass contraction, where there is no hemorrhage, the author trusts to time (two or three hours may be required) or the exhibition of an opiate, which he considers sufficient: when hemorrhage is present, he at once introduces the hand and effects its removal. We have to regret that he has omitted to notice the difficulty attendant on passing the hand in these cases, as also the precaution to be used to ensure a final regular contraction; indeed, this section is rather scanty. We feel disappointed at his hardly alluding to the occurrence of internal hemorrhage, and the means found useful for its suppression. He states "that he has little to say on the different modes made use of to excite contraction of the uterus by irritating its internal surface;" and again, "moreover the author has seldom had recourse to the introduction of the hand for the purpose of

exciting irritation. But in those cases where he has adopted that course, he has indeed sometimes succeeded; although at other times, and perhaps equally frequently, he has to regret that he has been greatly disappointed as to the result." We certainly were not prepared for this statement, nor does it at all tally with our experience. His plan of treating morbid adhesions is judicious.

Although it cannot be expected that we should go at much length into the portion of the work treating of Instrumental Delivery, as the substance of it has been for upwards of ten years before the public, this being little more than a reprint of Dr. Davis's *Elements of Practical Midwifery*, yet, as it forms a part of his system, we cannot leave it entirely unnoticed. Our remarks shall however be very few. It is not our intention to follow our author through his discussion on the different kinds of forceps, or mode of application: on these points we refer our readers to the work itself; but we cannot, however, help thinking, from the familiar and easy manner in which he speaks of withdrawing, changing, and reintroducing the blades of the forceps, he seems to have lost sight of the fact that one of the principal risks attendant on the use of this instrument exists in their introduction, and that even the withdrawal of a blade when the child is firmly pressed against the soft parts and pelvis, is not unattended with serious danger of lesion. We must enter our protest against the following practice:

"If we suppose," (says Dr. Davis,) "the forceps to be often used as a mere auxiliary to assist in overcoming local or temporary difficulties, or in cautiously effecting the dilatation of rigid parts, and not systematically to be kept in application until the delivery of the whole head is accomplished; it is evident that such a limited use of them may be had recourse to with much greater frequency than if we suppose a rigid adherence to the opposite but very common practice." (P. 1142.)

Such a practice, sanctioned by so high an authority, we cannot but consider likely to encourage a too ready resort to the use of instruments. As to the plan recommended of protecting the soft parts of the mother by securing a flannel pad or cushion to the convexity of the forceps, and thus adding of course to their bulk, we freely confess we have never tried it, conceiving that such a proceeding would increase the difficulty in their introduction; being also of opinion that cases which would admit of such a mode of delivery, would, by a little exercise of patience, be brought to a happy termination by the unaided efforts of nature. The author has omitted, in his otherwise accurate details, to dwell upon the signs of the death of the *fœtus* in utero. This we consider of much importance, inasmuch as in many instances it might have some weight in determining the instruments we would select for delivery. Auscultation, again hardly alluded to by our author, will be found most valuable in deciding this point.

From the circumstance already alluded to, with regard to the previous publication of the part devoted to instrumental delivery, we have directed our attention principally to the matter contained in the other divisions of these volumes; and we must now draw all our remarks to a close. The observations on the *Diseases of Children* in the third part, which are comparatively so concise, occupying only about sixty pages, we can no further advert to than to state that the subjects there treated of are for the most part discussed practically, although restrictedly.

We must here terminate our notice of this work. Our opinion of its actual and relative importance may be inferred from the pains we have taken to enable us to form a just opinion of it, and to deliver this honestly and explicitly to our readers. The first part of Dr. Davis's treatise, or at least the greater proportion of it, we esteem comprehensive beyond any work in the English language. It evidences great labour and unwearied research. The references and cases contained in it render it an invaluable addition to the obstetric library. In its present form, however, it is more likely to be used as a book of reference by the more advanced practitioner, than a class-book by the student. Not that we by any means recommend or sanction the too prevalent reading-made-easy system of primer instruction: on the contrary, in our opinion, it strikes at the root of science, and pushes artificially into practice a class of ill informed, injudicious, and consequently often mischievous individuals, who have but one rule of practice to adopt under the protean varieties diseases assume; and who are only, at the termination of a tolerably long life, beginning to learn, what observation at the bedside, and an intimate acquaintance with a sufficient number of well selected authors, should have long since taught them.

Although a work of great research, the reader will not fail to have remarked, that it is decidedly defective with regard to some of the most marked improvements which have taken place in this department of medical science within the last few years. To this indeed it may be objected that the work has been coming out in parts; but, the improvements, to which we allude, have almost all been known previous to the appearance of the first part. Even had this not been the case, it would not have been a very difficult matter to have introduced them in an appendix. We must, however, in candour admit that, though we have found not a little to condemn, still the greater part of the work has earned our unqualified approbation, as containing not only sound and practical, but also original matter.

By some it may be considered that we have been unnecessarily severe in our strictures; and we freely confess that a writer in a less exalted situation and coming before the public with fewer pretensions, might have been less decidedly censured, while he would have been less critically noticed. The case, however, is different with our author; his station almost ensures his work being received as an authority throughout this country, and by foreigners as the representative of British doctrines; we felt, therefore, conscientiously compelled to denounce whatever practice and experience satisfied us was objectionable in the statements put forward; we trust we shall not be considered to have done any thing more.

II. In entering on a review of the work of Dr. KILIAN, we have, at the very outset, to complain of much useless verbosity, and also of a scholastic pomposity, which, from its universal prevalence, is exceedingly annoying to the reader. In writing on subjects connected with Midwifery, or any other branch of medicine, every thing like gaudy description or floridness of style should be carefully avoided: it should be concise but comprehensive, simple but dignified: never, perhaps, were these qualities so remarkably combined as in the works of the celebrated Richter.

In Chapter I., speaking of examination with the hand through the abdominal parietes, Professor Kilian mentions the names of Røederer and W. J. Schmitt; but he neglects to inform his reader in what particular respect are these names connected with the above subject. The chief peculiarity in their mode of examination was, that, having placed the patient in such a posture as should effectually relax the abdominal parietes, by raising the knees and shoulders, they directed her to breathe slowly and deeply, and, during expiration, made pressure with the hand upon the abdomen.

The author, in his directions for examining per rectum, (p. 96,) informs us that "the finger should be *rapidly* introduced, with a twisting motion, through the orificium ani. The operator here must be quick, because, if he attempts to introduce the finger slowly, it may happen that the sphincters contract firmly, and close the intestine." We have always pursued a diametrically opposite treatment, insinuating the finger as slowly and gently as possible; and feel assured that, from the irritability of the sphincter, it would be quite impossible to pass in the finger suddenly without using an improper degree of force, and, at all events, putting the patient to much suffering.

The second Chapter is devoted to the Obstetric Measurement of the Pelvis. The author commences with a flourishing assertion, which we quote literally, in order to afford our readers a specimen of his verbose and pedantic style.

"It doubtless belongs to the most remarkable, aye, wonderful and unheard-of facts in our profession, that accoucheurs of every century, till the time of Deventer, had in no wise considered the pelvis and its defects, as causes of difficult labour; yea, that they had never once thought of it as a possible obstruction of labour, just as if there had been no pelvis at all." (P. 102.)

Does the Professor forget Mauriceau? a man who, considering the state in which he found it, contributed more to advance midwifery than any practitioner before or since his time; not even excepting our own celebrated Smellie. We do not see the use of enumerating all the various pelvimeters which have been invented, because, with the exception of Baudelocque's *compas d'épaisseur*, they have long since been proved to be useless, and are therefore deservedly forgotten. Indeed, we may say that the last paragraph of the chapter contains the sum total of the previous thirty-one pages; viz. that the hand of an experienced accoucheur is, after all, the best instrument for ascertaining, not only the size and shape, but also the condition of the pelvis.

Professor Kilian's third Chapter is entitled "on the Operative Treatment during the fourth and fifth Stages of Labour," and is divided into five sections: the first relates to the species of bed which the patient must use, and the position which she is to maintain during labour. In speaking of labour-chairs, he omits the name of Ambrose Paré, one of its earlier inventors. Again, in speaking of the labour-cushion, he merely mentions the names of Siebold and Carus, entirely omitting that of Joh. Unger, who claims a much greater priority. The Professor does not exactly approve of our English method of delivering a woman on her left side, although it is used in Germany by some of the most distinguished practitioners. Here, unfortunately, he is again at fault with his literature, and omits the name of Fielding Ould, who strongly recommends this position.

The author's observations on supporting the perineum, which forms the subject of the second section, are not more successful. The sum of the whole is, "that rupture of the perineum occurs almost as frequently when it is supported as when it is not; except that, when it is supported, the rupture is not so extensive. Michaelis's proposition (to *cut* the perineum,) is of no value; the perineum must be supported by the hand, protected by a napkin, and this support should be continued until the shoulders are born. A proper conduct on the part of the patient at this moment is as important as the support of the practitioner."

Madame la Chapelle's observations on the effects of pressing the perineum where the pains are slow ought to have been mentioned, where such a display is made of acquaintance with the literature of the subject. We ourselves have no experience as to the efficacy of such treatment.

The directions for receiving the child (sect. 3,) contain nothing remarkable. In tying the cord, the author informs us that the English accoucheurs of the present day tie the cord *immediately* after the birth of the child: this we must take the liberty of contradicting. His directions for instantly tying the cord where the child does not breathe, and not to attempt resuscitation whilst the connexion between the child and placenta remains, are faulty and mischievous in the extreme. The scissors ought *not* to be sharp, but rather blunt, in order that, by contusing the coats of the umbilical vessels, a greater degree of contraction may be produced, and thus the danger of hemorrhage diminished, in case the ligature slips or becomes loose.

Section 4, on Delivering the Placenta, contains nothing of interest. Much space is wasted in dilating upon the old method of delivering the placenta *immediately* after the birth of the child. In delivering a twin-placenta, the author directs us to pull first at one, then at the other cord. A bad mode of practice; as we are thus liable to tear the cord from its insertion, and separate the placenta unequally. We should twist the cords together; the strain is thus divided more equally, there is less danger of their rupturing, and the placenta come away better.

Chapter IV. treats on the Artificial Dilatation of the Os Uteri. This is divided into two sections: the first, where it is effected by mechanical stretching; the second, where cutting instruments are employed.

The historical introduction shows that the specula for dilating the os uteri are now no longer used; the hand being the only instrument for that purpose. The indications for the operation are very incorrectly stated; nor do we think they would have been at all improved if Prof. Ritgen had even added twenty more indications to the twenty he has already given; they only tend to prove that neither he nor Prof. Kilian have any clear notion upon the subject. Dr. Feist, in his review of the Professor's work, has mentioned four indications: "First, violent, dangerous, and uncontrollable hemorrhages, (especially in placenta prævia;) secondly, severe convulsions; thirdly, apoplexy; fourthly, retained placenta, with contracted os uteri, which cannot be removed by any other means." To these indications we also object. According to our own opinion,—and it is based on high authority,—we should say that the artificial dilatation of the os uteri is *never* indicated before the birth of the child: that we occasionally meet with cases where the introduction of our hand is justifiable before the os uteri has quite attained its full degree of dilata-

tion, is well known; but this is very different from the artificial dilatation of it. We should say, that in *no* case of hemorrhage is it indicated; because, where the patient is so seriously exhausted that we dare not wait to plug the vagina, the os uteri will be found quite relaxed, and capable of admitting the hand. The placenta being situated upon the os uteri ought rather to be a *contra-indication* to artificially dilating: our reasons for saying so we have already stated, in our review of Dr. Collins's work, (No. III. p. 83.)

In Rigby's Essay on Uterine Hemorrhage, we find that he expressly cautions us "against the premature introduction of the hand, and the too forcible dilatation of the os uteri, before it is sufficiently relaxed by pain or discharge, &c." His observations which follow show that this opinion was not the result of theory, but of experience. We deny also that artificial dilatation of the os uteri is indicated, or even justifiable, in severe puerperal convulsions: we should only run the risk of aggravating the disease to a fatal degree. That delivery of the child under such circumstances is most desirable, we do not deny. "The patient," says Dr. Burns, "should be delivered as soon as we can possibly do it *without violence*." Dr. Feist's third indication is in great measure liable to the same objections; the artificial dilatation of the os uteri being only justifiable in cases of apoplexy, where it has already become relaxed by bleeding, uterine contractions, and other means. It is only where the os uteri is contracted upon the placenta after the birth of the child, that we consider artificial dilatation of it to be indicated; and here the directions so correctly and simply laid down by Celsus are most fully applicable.

Professor Kilian, however, is not satisfied with all this; but feels convinced that the other operation is in many cases infinitely preferable; or, in other words, he recommends nothing less than cutting open the os uteri with a knife in some of the above-mentioned conditions, as acting more rapidly than by dilatation with the hand. In speaking of this favorite operation he gives four indications, two only of which we can admit; viz. first, where the os uteri is partially or completely closed by adhesion; and, second, where it is rigid from callous cicatrices and scirrhus indurations. The sudden death of the mother at the commencement of labour is no indication for this operation, the os uteri being *spasmodically* contracted round the child, even if the cord be implicated, would not justify our dilating it with the knife. If the Professor could have contented himself with the admirable observations of Richter on this subject, as also on imperforate and contracted vagina, which ought to have been noticed, this chapter would have contained valuable matter, expressed in intelligible language.

Chapter V. is on the subject of Rupturing the Membranes, or, as the Professor latinizes, "*Operatio ad rumpendas aquas*." Professor Kilian considers that the old view of the os uteri being dilated by the pressure of the elastic cone formed by the membranes distended with liquor amnii is incorrect, and that the dilatation is "solely the result of a peculiar activity of the inferior segment of the uterus." With peculiar inconsistency he states, in a following page, that this extends equally over the whole uterus; and, a little further on, that it exists chiefly in the fundus. To this view, if it had been less confused, we should have had no particular objection; but we greatly object to the Professor appropriating

the whole merit of the case to himself. Either he has never read Dr. Dewees's excellent observations on this subject, which are beyond all comparison better, or, if he has, that he has not thought fit (for reasons best known to himself,) to acknowledge it.

The indications for rupturing the membranes are, for the most part, incorrect, and would lead to bad practice: they betray a fondness for interfering with the regular process of a labour, which cannot be too strongly deprecated. We find the following observation at page 278, when speaking of the indications for rupturing the membranes:

"5thly. When we are desirous of fixing at the brim of the pelvis a presenting part, or a desirable part which has been made to present, and which we are uncertain will remain presenting, we not unfrequently see, in cases of spontaneous evolution (*Selbstwendung*), *where the membranes are unruptured*, that the part of the child which had presented favorably again recedes, and then again appears."

We do not complain of the indication, because cases do occur where it is desirable to rupture the membranes for this purpose; but what are we to understand by "Cases of spontaneous evolution where the membranes are unruptured?" This we cannot comprehend; at least, we never heard of such cases where the child had been carried the full time. Professor Kilian recommends rupturing the membranes to *diminish* the activity of the uterus, *where the contractions are too violent*. Most practitioners would adopt this practice with precisely the contrary intention.

Under the head of rupturing the membranes *before* labour, Professor Kilian brings on (and not very judiciously,) artificial premature labour. This forms the second section of the fifth chapter. The literature is given very minutely, and, but for the pompous diffuseness of the author's style, would have formed a very interesting article. He quotes the observation from Denman, that it was a practitioner named Macauley, in 1756, who first induced artificial premature labour, for the purpose of saving the child, and it is said with success. To Dr. Denman is due the merit of having first called the attention of the profession to the practical advantages of this operation. Weidmann first practised it in Germany, although the late Professor May first proposed it, in 1799, in his essay, "*de necessitate partûs quandoque prematuri, &c. promovendi.*"

In his observations on the effects and utility of the operation, Professor Kilian combats the various objections which have been made against it, and shows the absurdity of some of the arguments which have been used for this purpose by the French practitioners.

Professor Kilian's observations on the size of the head during the last month of pregnancy contain nothing new; but he leaves an equally, if not more, important point unnoticed,—viz. the softness and yielding condition of its parietes at this period. It is not the *size* of the fœtal head which is alone to be considered in this operation, but the hardness and degree of ossification must be also taken into account. There is no excuse for this omission; the more so as he proceeds, in the most self-satisfied style, to mention several well-known facts, which we would suppose he intended us to consider as discoveries.

Professor Kilian expresses his conviction that the development of the fœtus may be retarded by deficient nourishment, depressing passions, diseases, &c. From this incorrect notion we, of course, strongly dissent. We know that, under the greatest deprivations of poverty, large and

lusty children are born; that, in cases of seduction, &c., where pregnancy has been passed under the most overpowering despondency and wretchedness of mind, the unhappy mother has gone her full time, and has borne a fine robust infant. Nothing is more constantly observed than, in phthisis, where Nature appears to collect her last remaining powers, in order to complete the process of utero-gestation, and then sinks exhausted, that the child is generally healthy and strong, possessing every character and mark of full development. We are well aware that it was once proposed to retard the development of the fœtus, by bleeding, low diet, and other means of reducing the system; but the fallacy of this supposition has long since been proved; nor do we believe that it has ever been put into practice.

In speaking of the operation, a long and rather needless description is given of every modification of instrument which has been used for the purpose. He describes three ways in which the operation has been recommended to be performed: first, by puncturing the membranes; secondly, by artificially dilating the os uteri; and, thirdly, (Hamilton's plan,) by inducing uterine action, by separating the membranes to some extent from the uterus. He prefers opening the os uteri artificially, and then puncturing the membranes, a plan which cannot be recommended; and entirely omits mentioning the method recommended by May, and put in practice so successfully by Professor Naegelé,—viz. of first exciting uterine action by warm baths, a smart purge or two, abdominal frictions, and secale cornutum. The labour is thus made to resemble more completely a natural one: the membranes are not ruptured until the os uteri is dilated, and thus the child protected from the pressure of the uterus, which cannot but act prejudicially upon it where the liquor amnii has been drawn off prematurely.

We come now to the sixth and last chapter of the first volume,—viz. on Turning. This is divided into three sections: first, turning by bringing down the feet; second, by bringing down the nates; and thirdly, by bringing down the head.

The operation of turning has long been divided into two distinct acts; viz., first, artificially changing the position of the child; and secondly, the artificial delivery of it. Professor Kilian does not *distinctly* state this point, although he apparently intends to do so; and makes no mention of Aitken of Edinburgh, Foster of Dublin, or Wigand of Hamburgh, all of whom expressly noticed it. Stein, sen., as connected with the subject, ought also to have been noticed; and we find, from Dr. Feist's review, that the distinction "between *turning* and *extraction*" was clearly shown by the celebrated midwife, Justina Siegmund, so long ago as 1689; a circumstance we were not aware of. Dr. Feist has made an excellent remark on this subject, which we will beg leave to quote: "If the long axis of the child does not correspond with that of the uterus, turning becomes an *absolute* improvement of its position; but, if it presents with the head or nates, and cannot be delivered in this position, under urgent symptoms which require labour to be hastened, merely a *relative* improvement will be produced by bringing down the feet."

Professor Kilian's indications for turning we pass over: more directly against every fundamental principle of good practice in this branch of midwifery, they could not well have been. In describing the operation, one

would imagine that he is endeavouring to select every objectionable point of practice possible. His first rule is, that we should know correctly the precise position of the child. This is very proper; but is it always possible? What would he do in *placenta prævia*? These same objections will apply to his rules for using the right or left hand. His rules as to what part of the pelvis the hand is to pass along are useless: it would have been infinitely better if he had followed Dr. Denman's excellent directions on this head; viz. to pass up the hand on that side where there is most room; but the name of Denman does not once occur here. His observations on the management of a contracted os uteri are vague and unconnected. Dr. Dewees's admirable remarks on this subject ought to have been mentioned, as also those of Wigand; but no notice is made of them. In introducing the hand into the uterus, the Professor informs us that the next point to be thought of is rupturing the membranes! We should say, that at this moment it ought to be our especial object *not* to rupture them; but M. Kilian reprobrates the valuable practice laid down by Peu and Deleurye, of passing up the hand between the membranes and the uterus, until we reach the feet; and, from his reasons for so doing, evidently shows that he has no clear ideas upon the subject. Dr. Hamilton's remarks, also, on this important point are not noticed; and, on searching for the feet, no mention is made of Denman, although no one has given more simple and practical rules than he has on this point. The Professor (p. 405,) makes a good remark, as far as it goes, —viz. that, "as soon as the head has reached the fundus, and the hips the brim of the pelvis, the turning should be considered as completed." This is followed by no observation that the rest of the labour, now that the long axis of the child's body corresponds to that of the uterus, should be conducted according to the general rules for any other natural labour. His other directions, as to turning with the feet foremost, contain nothing peculiar, except that the method of turning the child upon its long axis, as proposed by Professor Deutsch, of Dorpat, has been mentioned. It consists of pushing up the shoulder by passing the hand under the axilla in such a direction that, whilst we raise the shoulder, we at the same time turn the back of the child towards the anterior parietes of the uterus, the feet will now be secured with the greatest ease. This operation is said to facilitate changing the position of the child under circumstances which would otherwise render it difficult: we have never attempted it in practice, and only know of its mode of action from having been shown it, some years ago, on the skeleton pelvis, by Dr. Deutsch, jun.

The Second Volume begins with rules for extracting with the feet foremost. The author appears to think that nature has nothing to do with this process, and does not appear to be aware of the important office which the fundus uteri performs, in pressing upon the head, in order to prevent the chin quitting the breast. He also hints that the *accouchement* force is necessary in *placenta prævia*!

The eighth Chapter is on the Forceps. To go into this interesting subject as fully as it deserves, would require us to dilate this article much beyond the limits we have assigned for it: we must therefore confine ourselves to the most important points, and notice them in as brief a manner as possible.

Forceps of a much better form, and with fenestræ, had already been used by Drinkwater, and *at least* as early as 1726, by Giffard; when nothing of the sort, beyond the clumsy unfenestrated blades of Palfyn, were known in Paris. They were improved to a certain extent, it is true, by Petit, &c.; but Chapman's forceps soon became those in common use at Paris, and were the origin of Gregoire's and other French forceps. Professor Kilian's history of the forceps is wretchedly meager and incomplete: here was a wide field for the display of extensive reading and literary acquirement, and it would have given us much pleasure to have seen this subject well handled. The improvement of the forceps, by adding the pelvic curvature, which was equally due to Levret and Smellie, is not mentioned; nor are the merits of their respective claims to the invention at all discussed. The author seems unacquainted with the short paper published in the Medical Gazette, several years ago, by Dr. Rigby.* The description of the Chamberlen instruments, which were found some years ago, and which was published by the same gentleman, ought to have been mentioned; but the Professor, as Dr. Feist observes, appears to have been ignorant of it. Our limits will not permit us to enter into any of these interesting points which M. Kilian has passed by unnoticed: we cannot, however, pass by a rather amusing specimen of vague assertion, which at the best must be the result of ignorance:

"Our opinion," says the Professor, "of the English accoucheurs must be very unfavorable, if we are to draw our conclusions of the operator's skill from the form of his instruments; for they use such the chief merit of which is that they can be conveniently concealed in the breeches pocket!"

The absurdity of such a statement is its best refutation. It is a pity that Professor Kilian, when he was in London, did not employ his time to more advantage. The forceps of Denman, Osborne, Clarke, Gooch, Hopkins, besides those of the various accoucheurs of the present day, prove that the Professor is not more acquainted with the modern English forceps than he has shown himself to be with those of former times.

In the enumeration which follows of the more important forceps which have been invented at different times, with their dates, the author fairly owns that Mulder, up to a certain period, has been his authority. We cannot, of course, object to his using this admirable work as a reference; but, when the Professor copies a wrong date, it shows the extent of his reading on this subject, and that Mulder must have been his "ultima Thule" of literary research. He is right to put a mark of interrogation to the date (1725,) of Drinkwater's forceps, because there is strong reason to believe that Drinkwater possessed them much earlier, although not so early as Mulder states, viz. 1668, when, according to Dr. R. W. Johnson, he first entered practice. The date of Dusee's forceps is earlier than 1733; because, after having used them in practice, and made several improvements, he communicated them to Dr. Butter, of Edinburgh, whose description was only published in 1733. Again, 1734 is merely the date of the publication of Giffard's work, which took place after his death. If Prof. Kilian had only read the title-page, he would have seen his error; and, if he had read the book itself, he would have found that

* January 8, 1831. "Historical Analysis of the English Midwifery Forceps."

Giffard used his *extractor* at least as early as 1726. Nor is 1735 the date of Chapman's forceps; because in 1733 (the date of his first edition,) he was evidently in possession of them, but did not choose to divulge them.

The date of Dr. Leake's "Lecture introductory," &c. where he describes his three-bladed forceps, is incorrectly given by Mulder, probably an accidental oversight or misprint, (1774, instead of 1782.) Professor Kilian, we presume, has never referred to Leake's work; otherwise, he would not have copied the wrong date. The date also of Dr. Edward Foster's work is printed 1788 in Mulder, instead of 1781. If the Professor had consulted Froriep's list of obstetric authors, which in other parts of his work he seems to have found particularly useful, he would have there seen the right date. The author regrets (p. 561, *note*,) that Professor Naegelé's highly-praised forceps have not been described: we are not aware that Professor Naegelé has invented any new forceps; the instruments which he uses resemble those of Boer and the late W. J. Schmitt, which are very similar to the Smellie forceps.

It is impossible to follow Professor Kilian in his most diffuse observations on the application and use of the forceps, and on the indications for applying them. We may briefly state, that the forceps acts in three ways; by traction, by compression, and as a lever. As a general rule, we may say that they are indicated in all cases where (the head presenting, and the antero-posterior diameter not less than three inches,) the natural powers are unable to expel the child; or, secondly, where circumstances dangerous to the mother or child require that the labour should be hastened. The rules for applying the forceps are those usually followed in Germany; viz. the patient is placed across the bed, propped up in a half-sitting posture by pillows, &c., her pelvis resting upon the edge, her feet on two chairs, the knees supported by assistants. The female blade, as it is called, is applied first; two, and generally three, fingers are passed, if possible, up to the os uteri, on the side where the blade is to be introduced; the index-finger is held a little behind the middle finger, so that this last, by projecting somewhat, forms a species of ledge on which the blade slides, and which acts as a fulcrum to it; a point which the Professor does not mention. The handle is held at first nearly perpendicular; but, as the blade advances, it gradually approaches the horizontal direction, being guided by the pelvic curve of the instrument. The middle finger, along the ulnar surface of which the convex edge of the blade slides, prevents its extremity from passing too far backwards, and directs it in the axes of the pelvis. When introduced to the full extent, the handle is inclined obliquely downwards, and is now grasped by an assistant, passing his hand below the patient's thigh. The other blade is introduced in the same way on the opposite side of the pelvis; and the locking, extraction, &c. conducted much in the same manner as in England.

We have described the operation as we have seen it performed by the late Professor von Siebold, at Berlin; and certainly nothing could surpass the dextrous gentleness (if we may so express ourselves,) of his operating. This mode of applying the forceps when the patient is lying on her back, we have found useful on more than one occasion.

The ninth Chapter is on Perforation. Professor Kilian uses a trepan-

shaped perforator; an instrument which we strongly disapprove of, as not fulfilling one of the most important objects of perforation,—viz. splintering the cranial bones. The various lancet-shaped and other cutting perforators of former times, which made the opening at a fontanelle or suture, were ill adapted for the purpose; inasmuch as, when a small quantity of brain had escaped, the bones, coming nearer together, closed the opening. The ring-scalpel, as used by Ræderer, Simpson, &c., and the long curved lancet used by Wigand, in modern times, were exceedingly dangerous instruments, and all subject to the above objection. Professor Joerg, of Leipzig, we believe, is the only practitioner of any rank of the present day who uses the trepan-formed perforator. The instrument used for this purpose by Professor Naegelé, of Heidelberg, is by far the most convenient with which we are acquainted. It is a scissor-shaped perforator, with the point and edges exactly like that of Dr. Denman's, but, instead of the blades crossing at the joint, they merely meet in a hinge, and again diverge; so that, when we press the handles together, the points open. By this means we obtain a great increase of power; for, by merely grasping the handles firmly, we can make the blades diverge, and dilate the opening, without removing the finger of our other hand, which we had placed against the head, to guard the soft parts of the mother. This is not possible with Denman's perforator: the finger and thumb of one hand are not sufficient to open the handles, and we are therefore constrained, after having made the perforation, to use both hands in pulling the handles asunder. This is hazardous; for a sudden movement on the part of the patient may have withdrawn the point of the instrument from the head; and, not having a finger now upon the spot, we cannot be sure that all is safe. In order to keep the points of Naegelé's perforator in close apposition whilst entering the head, the extremities are fixed with a catch, something like that with which the common sugar-nippers is furnished.

The different views which practitioners have entertained as regards this very important operation, have been in many cases so widely different, that it is impossible not to suppose the extreme modes of practice on both sides faulty. The violent and unmeasured opposition which was raised against perforation by the celebrated Osiander, was one among the many peculiar views which were entertained by this learned but extremely opinionated author. Osiander declared, that under no circumstances was perforation justifiable; because in those cases where, according to other practitioners, it was indicated, he could deliver the patient by means of his immensely powerful forceps. Osiander has forgotten to tell us what became of the mother and child after such an operation. To give our readers an idea of how little open to conviction he was on these subjects, we may observe that, when compelled to perforate in cases of hydrocephalus, he then called it *paracentesis capitis*.

If there be one point in obstetric practice more difficult than another, it is to determine the precise limits beyond which the forceps ceases to be applicable, and the perforator becomes indicated. To fix the boundary line merely by ascertaining the degree of pelvic contraction, is obviously incorrect; as this may depend, in great measure, on the size of the child's head, the hardness or softness of the cranial bones, the rigidity of the soft parts, and condition of the mother, &c.: hence it is that we occa-

sionally meet with cases where the perforation is required in a patient who has already borne a living child in her former confinement, and perhaps even without assistance. Nor is it a proof of a practitioner having perforated unnecessarily in her first labour, because in her second the child is born alive, and without any peculiar difficulty. Cases of this sort are well known to occur in large practice: a patient is delivered of her first child alive, and after a perfectly natural labour; in her second, so far from this being easier, she will perhaps require the forceps, and in her third the perforator; and yet the fourth labour will pass over as easily and favorably as the first. These varieties in the same individual depend not merely on one, but on a combination of many causes; among others, none is more worthy of attention than the swelling of the soft parts, especially *below* the head, from interrupted circulation. If the head has been pressing for some time against the pelvis, the soft parts become puffy and œdematous, and, together with the swelling of the cranial integuments of the child, combine to diminish still further the space between the head and pelvis, and increase the difficulty. Dr. Campbell's judicious observations on these points have not been noticed by our author.

Professor Kilian very properly combats the attempt to make a certain degree of pelvic contraction the guide for our use of the perforator, and gives a number of cases from French authors, where living children are said to have been born under circumstances of considerable pelvic deformity. To determine the precise degree of pelvic deformity up to a line, as Madame Boivin professes to do, is, in our humble opinion, rather hazardous; but there can be no doubt but that the head of the child, in some cases, will undergo an extraordinary alteration of shape by the yielding of its bones and overlapping of their edges, without injuring life. The author tells us (p. 746-7,) that, "where the head is fast locked in the contracted pelvis of the mother, so long as her powers are undiminished, and the pains very energetic, we must not think of perforation." When is it that we may venture to wait and see what nature can do to force the head through the contracted pelvis? When the pains are "*very energetic*?" Assuredly not, for we are running a great risk of rupturing the uterus; but when they are steady and moderate, for then the head will have time to yield and adapt itself to the passages.

Chapter X. is on Embryulcia. The author's first indication is, to our notion, little short of nonsense. Embryulcia is indicated "in cases of such pelvic deformity that the Cæsarean section would be indicated, but where the child is evidently dead, and the mother, for the sake of the dead child, will on no account submit to the operation." Under such circumstances, we should say that the patient is much wiser than the doctor. Who in their senses would think of performing a Cæsarean section where the child was known to be dead, and embryulcia not impossible? The name of Dr. Clarke, of Dublin, does not once occur here, nor of course any of his excellent directions for performing this operation, some of which we briefly quoted in our review of Dr. Collins's work, vol. ii. p. 80.

In Chapter XI., on the Cæsarean Operation, nothing worth notice occurs except a most singular (and we are quite certain original,) proposition of the author, viz. that in cases where the Cæsarean section would

only be performed where the child is known to be certainly alive, he recommends that we should ascertain this point by rupturing the membranes when the os uteri has dilated, introducing the hand into the uterus, and feeling for the pulsations of the cord. It is singular that Professor Kilian, after the statements made in his first volume, should not have mentioned auscultation as a means for determining this important point, but not a word about the stethoscope occurs.

The indications and directions for performing the operation are minute to a most useless and perplexing degree. There is no doubt but that during the last few years the Cæsarean operation, in the hands of the German practitioners, has lost much of that formidable character which it hitherto possessed. The chief points on which their success has appeared to depend are, operating at an early period of labour, making no useless examinations or attempts to deliver: the incision has been made in the *linea alba*, the operator has been aided by experienced assistants to support the abdominal parietes either with napkins or sponges dipped in oil, or with the hands alone, and thus all protrusion of the intestines has been prevented. We cannot quote a more instructive case than that of which we gave an extract in our third Number, p. 270, where the Cæsarean operation was performed three times successfully on the same female. The second operation appears to have lasted barely five minutes, and without any considerable suffering on the part of the patient until the moment of making the sutures.

Chapter XII., on the Section of the Pubes, we pass over, as being an operation which has never been practised to any extent, and in the present day would not even be deemed justifiable.

Chapter XIII. considers "The After-Birth Operations;" and, although extending to thirty pages, contains nothing worthy of notice in the present day.

We should here have closed our review of this work; but, to our dismay, a third volume has made its appearance since the first two, and demands our further attention. This gives an account of the purely Surgical Operations of the *Accoucheur*.

Chapter I. is on the Operation for a Ruptured Perineum. In his introductory remarks, Dr. K. describes the treatment of a common severe case of rupture which heals without artificial assistance, but forgets to say any thing as to the state in which the bowels are to be kept; a circumstance which we hold to be of the highest importance. Within the last few weeks, a case of complete rupture into the rectum occurred to our own notice, in which nothing was done beyond applying cold wet cloths to the wound, keeping the parts very clean by injections into the vagina, and obtaining early and liquid evacuations from the bowels. During the first twenty-four hours the *fæces* passed through the proper opening, and only once, viz. in about thirty-six hours after the accident, did a small quantity of feculent matter pass away involuntarily through the vagina. The parts gradually contracted, the patient remained very quiet, and complete union followed.

We agree with Wigand that rupture of the perineum heals more rapidly when it takes an oblique direction; and the author's observation, that this form of rupture occurs more frequently than where it runs straight towards the sphincter, agrees entirely with our own experience. Where severe

perineal rupture has taken place, most practitioners, both of former and modern times, recommend that the operation should be attempted immediately; whereas a few, among whom are Carus of Dresden, and Dieffenbach of Berlin, consider that this should not be done till at least the month has expired. The author rightly agrees with this latter view, because we never can tell at first, in desperate cases, how far nature will not go towards healing the wound herself, and certain it is that spontaneous cures take place much more frequently than artificial ones. We glean from his account of the operation two points; first, that we should never attempt to unite the edges of the rupture as far as the anterior margin of the perineum, since it is the posterior portion upon the union of which the patient's cure depends; and 2dly, to isolate that portion of the rupture where the suture has been made, on the plan recommended by Dr. Dieffenbach. This consists in making an incision through the skin of the perineum, commencing about 4—6 lines sideways from the posterior edge of each labium, running in a curved direction, and terminating at about three lines to one side of the anus. By this means the edges of the laceration are not liable to be torn asunder by any movement of the legs, being completely isolated from the neighbouring parts, the edges are brought together by means of the fine pins which Dr. D. uses in the hare-lip and other operations, and are thus placed in the most perfect apposition. Union therefore takes place by the first intention; whereas the incisions on each side, being fresh wounds, are allowed to heal by granulation. The value of these lateral incisions removing tension where parts have been brought together, we have more than once had occasion to admire in the hands of this distinguished operator, and regret that his mode of practice, with a few exceptions, has not excited that degree of interest in this country which it so well deserves.

The bowels are *not* to be rendered costive upon the day of the operation by giving a grain or more of opium, (as Prof. K. recommends,) so that the patient shall have no relief for at least three or four days, but by mild laxatives are to be kept in the gently fluid state we have already mentioned. His dose of calomel and jalap at the end of a four days' constipation is extremely objectionable; except a severe drastic purge, he could not have selected under such circumstances a more unfit combination. Where the circulation of the patient is not below par, we consider the use of cold applications, as recommended by Dr. Dieffenbach, very valuable: we thus restrain the inflammation to the adhesive form, and prevent its proceeding to suppuration or sloughing.

Chapter II. Catheterizing the Female Bladder. The Professor tells us that, wherever we can remove the retention of urine by cataplasms, *leeches*, vapour baths, &c. within due time, we should not resort to the catheter. In most cases, it is true, we should try warm fomentations, sitting over steams of hot water, &c.; but as to *leeches*, we think that passing a catheter is a far shorter and simpler operation. The degree of distention which the bladder has attained is a more important guide for passing the catheter, than retention for a longer or shorter time, because involuntary dribbling of urine to a considerable quantity is frequently observed where the bladder is distended to a dangerous degree. We feel bound to meet with a flat contradiction the author's random assertion, that the English practitioners place a female on her side, with her knees

drawn up very high, for the purpose of passing the catheter. Like Professor K., we have always recommended the elastic catheter; and in all cases of difficulty, whether from pressure or displacement, have found it infinitely preferable to the silver one. It is far safer in the hands of a midwife.

M. Kilian's rules for finding out the position of the orificium urethræ, are precisely those which we ourselves have practised for many years, although we make no claim to originality, having received them from an eminent practitioner since deceased. He very properly directs the operator to feel for the cushion-like prominence, which the urethra forms beneath the symphysis pubis, and following this to its anterior extremity, he comes without fail to the orificium. We would have quoted his words, but his verbosity prevents us. He mentions in a note that in England a bladder is frequently attached to the end of the catheter to receive the urine; a common wine-bottle is more convenient, as it may be emptied several times, if necessary, without disturbing the catheter.

Where there has been considerable distention of the bladder, we frequently find, after the urine has ceased to flow, that, on passing a catheter a little further, we come, as it were, into another cavity from which we succeed in drawing off a large quantity, owing probably to incomplete contraction of the bladder.

Chapter III. is on the Operation for Imperforate Vagina and External Parts, but contains nothing deserving of notice.

Chapter IV. is on the Operation for Prolapsus Uteri. Professor K. recommends that, where the prolapsus resists all our attempts to reduce it, we should use bloodletting and the warm bath. The former, where there is no febrile action to indicate its use, will not be justifiable here, and we should rather suspect that the latter remedy would, if any thing, aggravate the evil. If he had understood the pathology of prolapsus uteri, he would have found that active leeching and afterwards cooling applications, would in such cases have been more effectual. Where a prolapsed uterus has become very large and heavy, local detraction of blood is almost necessary in every case; not only with regard to the mere reduction, but also mainly as respects the retention of it afterwards. We have repeatedly seen cases of prolapsed uterus, which had resisted the common remedies, completely relieved by the self-same treatment when reduced in size and weight by leeching. In the following page (83,) another observation occurs, which proves to our mind that the author has but an imperfect and confused view of the subject. He affirms that local corroborant remedies are of far more value than general ones. Nothing can be more incorrect than such an opinion. Without the use of medicines to improve the general health, local remedies, of whatever sort they may be, will produce but little good. Every practitioner of any experience will accord with us in saying that many cases of partial prolapsus will recover entirely, where improvement of the general health has been carefully attended to, without the application of local remedies. On the other hand, we own that in some cases of long standing prolapsus, where the health is but little, if at all, affected, the use of local astringents will form the chief part of our treatment.

Dr. K. asserts that vaginal injections are of no use in prolapsus uteri. In this opinion we cannot agree with him. When combined with

the necessary attention to the general health, we believe them always a most valuable adjuvant in the cure; but we fear they are often very injurious in the hands of some practitioners, who appear to trust to them almost exclusively.

Professor Kilian recommends the medicated pessary, (a cylindrical bag filled with some vegetable astringent powder,) mentioned in our last Number in the review of Dr. Hamilton's work; but even this is far inferior, we think, to a piece of soft sponge rolled into a cylindrical form, wound spirally round with twine to prevent its expanding, and soaked in an astringent mixture. A mere sponge introduced without this preparation does more harm than good, as it acts like a common tent, and dilates the vagina still further; and we ought to have stated more explicitly in our remarks on this subject in our last Number (p. 134), that we object almost as much as Dr. Hamilton to the use of the ordinary pessaries on this account: at least, if they do not actually dilate the vagina, they prevent its contraction.

Professor Kilian describes the Operative Treatment of Prolapsus Uteri *during Labour*. The circumstances under which this may occur are not mentioned. It occurs where the pains are unusually severe, and accompanied by most violent detrusive efforts. In many instances, an exceedingly rapid labour is the result; but in other cases, where the os uteri does not yield so rapidly, the whole uterus will be forced low down into the pelvis, so that even the lower third or half will protrude at the os externum. The treatment in moderate cases will consist in merely desiring the patient to resist the impulse to strain as far as lies in her power; to remove all towels, &c. to pull by, or cushions to push against; to place the pelvis high, and shoulders low; and to keep her as cool and quiet as possible. Where the os uteri is considerably detruded before it is fully dilated, and even projects at the os externum, all attempts to support it with the hand, as recommended by the author, are utterly useless. This will only irritate and inflame the os uteri, and thus delay its dilatation. Where matters have come to this extent, the only method which will be of any avail is that recommended by Professor Naegelé, viz. of putting on a strong broad T bandage, and cutting a slit through it where it corresponds to the os externum. The child's head will press against and ultimately force its way through this opening, while the uterus is prevented from descending any further. Professor Naegelé tried this plan with perfect success in a case where in the former labour the lower half of the uterus had protruded, and where the pains this time were equally violent.

Chapter V. Operation for Inversion of the Uterus. That this displacement will be attended with very different effects in different cases, is an observation of the author's with which we perfectly agree; that in some cases the most alarming symptoms or even death will occur; that in others the patient will experience little or no derangement. The reasons of this variety he has not given, nor do Dr. Dewees's excellent observations on inversion appear to have excited his attention. The severity of the symptoms depends on the degree of inversion. In partial inversion, where the fundus or a portion of it has passed through the os uteri, where in fact the uterus is in a state of intussusception, and tightly girt by the spasmodically contracted os uteri, the most terrible and alarming

symptoms will result. In the words of Dr. Dewees, "the woman almost instantly complains of a severe and distressing pain about the region of the uterus; an effort to force or bear down, nausea, and sometimes vomiting; great faintness, with more or less hemorrhage, cold clammy sweats, pulse small, frequent, or extinct." The reduction is easier in partial, but the danger greater than in complete, inversion. In the latter the uterus, it is true, is turned wrong side outwards, but there is no strangulation, and being capable of contracting, there is much less danger from hemorrhage. And here we differ in some degree from the opinion of Sir C. M. Clarke, where he says that "it is generally, if not always, a consequence of mismanagement of the placenta;" and are supported in our opinion by the experience of Dr. Dewees. "It has been almost universally supposed," says this excellent author, § 1303, "that an undue force applied to the cord for the delivery of the placenta was the principal cause of this accident; but in this we differ from such authorities as have adopted the opinion, and for the following reasons: First, because the accident has occurred after the delivery of the placenta. Second, because it has taken place when no such force has been applied; but the caution of not applying too much force to the cord for the withdrawing of the placenta is founded upon just and important principles; since, did the disposition to inversion exist, and this mass be attached to the fundus, it would be almost certain to produce it, when perhaps without such force the woman might escape from the danger."

Cases frequently occur where the uterus is but slightly contracted after the birth of the child, and where, on pulling the cord, we feel the fundus so moveable that it seems as if a moderate degree of force would be sufficient to bring it down. On the other hand, several cases have occurred to us where the patient has been suddenly surprised with a violent pain, and the child expelled before she could reach her bed or even lie down on the floor. In at least three of these cases the cord was broken, and thus gave evidences of considerable force having been applied to the fundus. Where the fundus is not reducible, Professor Kilian recommends that we should keep it in the vagina by a proper pessary, and, to diminish its size still further, to scarify the surface of the uterus, and to rub in iodine, mercurial or cicuta ointment, strict diet, &c. We scarcely know how to reconcile such a recommendation as this with any degree of practical knowledge in the proposer. To rub in ointments of this sort on the surface of a chronically inverted uterus with a profuse leucorrhœal discharge, or perhaps a menorrhagic hemorrhage, every ten or fifteen days; for the cure of which, moreover, under such a debilitating drain to the system, she is put on strict diet, &c.!!

In cases where it is very difficult or impossible to return an inverted uterus, the Professor recommends compressing it with the hands in order to diminish its bulk. This plan was practised successfully by Mr. C. White, of Manchester, many years ago, and M. Kilian ought to have mentioned the circumstance. The case to which Mr. White alludes was one of nearly complete inversion, which had occurred about an hour before his arrival. Finding that the taxis did not succeed, but brought on violent forcing, accompanied with profuse hemorrhage, and as the body of the uterus appeared too large to pass through the os uteri, which was contracted, "I grasped," says Mr. White, "the body of it in my hand,

and held it there for some time, in order to lessen its bulk by compression; as I perceived that it began to diminish, I persevered, and soon after made another attempt to reduce it by thrusting at its fundus, it began to give way, I continued to force it until I had perfectly returned it, and had insinuated my hand into its body. It was no sooner reduced than the pulse at her wrist began to beat; she recovered as fast as we could wish." In addition, Professor Kilian recommends active bloodletting, warm bath, tobacco injections, poultices with belladonna, &c. injections with warm oil, and lastly, if the os uteri be still rigid (or rather we should say if the woman be still alive), incisions into it, and blames the "ridiculous fears" of the French and English practitioners for not trying this mode of practice! We need hardly say how decidedly improper this practice is.

Chapter VI. Operation for Retroversion of the Uterus. This chapter occupies fifty-seven pages, and contains an immense quantity of literature jumbled together in a very confused manner. The names of Dewees and Burns are, it is true, mentioned, but none of their valuable observations quoted: however, as the views of both these authors on retroversion are remarkably clear and valuable, we recommend them to our younger readers. An appendix follows on anteversion, or, as he calls it, pronation of the uterus. The Professor considers this an extremely rare displacement.

Retroversion occurs most frequently in the gravid state, anteversion in the unimpregnated state, and has appeared to us, in those cases which we have seen, to be connected with gastric or menstrual derangement. The prominent symptoms are, the not being able to retain much water in the bladder, a sense of pressure and pain about the pubes, with dragging in the groins. In severe, or rather we should say complete cases, the os uteri will be found turned directly to the sacrum, and a firm solid body, viz. the fundus, pressing against the neck of the bladder. We have once only met with it during early pregnancy, and by pressing up the tumour which was close behind the symphysis pubis, we were enabled to reach the os uteri sufficiently to hook it down with the finger into its natural position.

Chapter VII. Operation for Vesico-Vaginal Fistula. Professor Kilian has collected a considerable quantity of literature upon this highly important subject. Much may be done to diminish this injury, were the patient able in every case to lie upon her side with the catheter in the bladder, as soon as it is discovered that the water comes by the vagina; for, by keeping the bladder constantly empty, and preventing the urine from escaping through the opening, the parts contract so much that the wound will either close of itself, or diminish so considerably as to be capable of being cured by caustic or actual cautery. At all events this plan should always be premised, before having recourse to the operation itself. In many cases, however, so much fever and abdominal inflammation have been brought on by the same cause which has produced the local injury, that it is impossible to attend to these points until the patient herself is in a state of safety. The vesico-vaginal fistula, with a view to the operation, may be looked upon as of two sorts, the longitudinal and the transverse. We can scarcely look upon those cases where the posterior wall of the cervix vesicæ has been entirely destroyed as curable, although the bold and skilful attempts of Dr. Dieffenbach have proved

successful under circumstances the most discouraging. Professor Naegelé in his "*Erfahrungen und Abhandlungen*," published 1812, was one of the first to propose a plan for curing this hitherto irremediable mischief. One method was by means of a peculiar forceps, which, being furnished with minute points or prickles, was enabled to seize the edges of the opening, which had been previously pared for the purpose, and keep them in close apposition until union was effected. This instrument is only adapted for longitudinal openings, although we think that a modification, if necessary, might easily be made for those which are transverse. Where there is a considerable loss of substance it will be but of little use. Under these circumstances, the results of Dr. Dieffenbach's practice, detailed in his surgical observations, are exceedingly valuable, and show that union may be effected under circumstances which, with any other mode of treatment, would have been hopeless.

Professor Naegelé has also proposed a plan of making the suture *per urethram*, but merely mentions the idea in his observations on this subject, and, as far as we know, never carried it into effect. It has, however, been tried with perfect success by Dr. Koehler, and a description of the operation given in his Hospital Reports, a periodical work full of valuable surgical practice, published in Polish at Warsaw. Dr. K. uses a curved catheter open at the extremity, and furnished with a *porte-aiguille* or needle-holder: having pared the edges, he introduces the forefinger of his left hand into the vagina against one of them, and directing the point of the catheter, which he holds in his right hand, to the corresponding part on the vesical side of the opening, transfixes it with the needle which the catheter contains; this (previously armed with a long ligature) is seized by a forceps *per vaginam*, and brought out at the os externum. The other end of the ligature is now attached to a needle, which is fixed as before in the *porte-aiguille*, and passed into the catheter as the first was, the finger *per vaginam* and the catheter *per urethram* are directed to the corresponding portion of the opposite edge of the opening, and thus the other end of the ligature is brought through the os externum. The ligature is tightened by a proper instrument (*serre-nœud* :) and the operation repeated according to the number of sutures required. We have not as yet seen this operation performed, but, from its great simplicity, and from the assurances which Dr. K. gave us of its success, have no hesitation in recommending it to the notice of our countrymen.

In Chapter VIII. on the Operation for Polypus of the Vagina and Uterus, nothing occurs worthy of noting, although it extends to fifty pages. A great number of different instruments for tying polypi are both described and delineated: no notice, however, is taken either of Gooch's or Gräfe's polypus instruments, which are by far the most valuable.

Chapter IX. on the Operation for Partial or Total Extirpation of the Uterus, is, like most of the other parts of the work, diffuse and tedious, and contains nothing of novel interest.

No mention is made throughout this work of applying leeches to the os and cervix uteri. We are the more anxious to call the attention of our readers to this point, because we stated in one of our former Numbers, (Review of Duparque, No. IV.) that the practice had scarcely been tried in this country; a statement, as we have since learned, which is not correct. We ought to have confined our observation to the published records

of practice. We now find that the application of leeches to the os uteri has been pretty extensively used in private practice, not only in the metropolis, but in many other parts of England; and, as we have ascertained, with much benefit. This remedy is indeed regarded by those who have used it as one of the greatest improvements in this branch of practice. Inflammation of the cervix uteri, generally of a subacute character, is by no means an unfrequent disease among females, and is but too often followed by scirrhus induration, lancinating pains, and carcinomatous destruction. The application of leeches to the os and cervix uteri, repeated according to circumstances, and aided by the exhibition of medicines calculated to regulate and promote the general health of the system, is the mode of treatment which offers the greatest chance of success when once this insidious disease has established itself. Four or five leeches thus applied will produce more relief than several ounces of blood abstracted by cupping from the sacrum, loins, &c. This is of great importance; for, not only in the above-mentioned affection, but also in several derangements of the menstrual function, where leeches to the os uteri have been attended with great success, there has been too much debility to warrant any considerable depletion. The mode of application by means of a straight tube with holes at its extremity, is, we presume, too well known to require any description.

ART. VIII.

The Nature and Treatment of Dropsy; considered especially in reference to the Diseases of the internal Organs of the Body which most commonly produce it. Parts I. and II. Anasarca and Ascites. With an Appendix, containing a Translation of the Work of Dr. GEROMINI on Dropsy, from the original Italian. By EDWARD J. SEYMOUR, M.D., Physician to St. George's Hospital, &c.—London, 1837. 8vo. pp. 218.

OPINIONS on the nature of dropsy, like those upon all other frequent and formidable diseases, have continually varied according to the prevailing doctrine of the day. Considerable light was imagined to have been cast on the obscurity of the disease when it was, in one age, pronounced to depend on the cold temperament of the liver, and, in the next, on a supposed contrary condition; or when, in subsequent times, it was explained by a defect in the power of the abdominal viscera of collecting the superfluous humidity; or by chemical, spiritual, and mechanical theories of equal weight, and equally satisfactory to their inventors. It is, then, a matter of no surprise that the peculiar bias of men's minds, in the present age, should have influenced their opinions concerning this disease; nor that, since mere hypothetical reasoning has given way to the study of facts and attempts at philosophical induction, we should have approached more nearly to some real and exact knowledge of the malady. The attention which has been paid to the phenomena of inflammation in the various tissues of the body, since the time of John Hunter, has led to the recognition of the frequent dependence of dropsy on inflammation; and the ardour with which pathological anatomy is now cultivated has induced many to study the connexion between dropsy and organic

changes in the various viscera; a connexion recognized faintly by Hippocrates, and very pointedly by the older writers; but only clearly proved and systematically studied in our own days. Exclusive devotion to one system is not the prevailing error at present; and, as far as dropsy is concerned, the general and correct opinion seems to be, that it may depend on very opposite conditions of the whole system, and on very various organic diseases. The title of the work before us seemed to show that Dr. Seymour took this eclectic view of dropsy; and a perusal of it justified the supposition as to the soundness of his general principles.

The first part of the work is devoted to Anasarca; the second, to Ascites.

Dr. Seymour believes dropsy to arise, in most instances, from the return of blood to the right side of the heart being obstructed; and that the secretion of fluid relieves the impaired function of the organ. He illustrates this by the example of œdema of a limb, the simplest form of dropsy, depending on tumours pressing on the veins above the swelling, as in ovarian disease, or in obstruction of the vein itself in phlebitis, as in phlegmasia dolens, &c. In like manner, it is to be expected, when great obstruction exists to the return of blood to the right side of the heart, that the whole venous circulation would be congested, and hence the whole capillary system would secrete fluid as a relief to the obstruction. But, although Dr. Seymour is inclined to the belief that disease of the heart is the most frequent cause of dropsy, he admits its occasional inflammatory origin after eruptive fevers, and the sudden application of cold; and also its dependence on disease of the kidneys.

Anasarca from Disease of the Heart.

1. From Rheumatic Disease of the Heart. The subjects of this disease are generally young, and, with few exceptions, under forty years of age. Dr. S. has seen it in patients of nine years of age. On account of the disease occurring at an early period of life, before excess in the use of spirits, exposure to great changes of temperature, or the advance of years, have injured the soundness of other internal organs, it is the simplest view of the cause and effect. The symptoms are—swelling of the cellular membrane, beginning about the ankles; the face is also swelled, especially the eyelids; an expression of anxiety, even greater than in diseases of the chest in general; pulse generally small and quick, sometimes intermitting, but very small compared with the tumultuous beating of the heart itself, owing to the heart enlarging considerably without a corresponding enlargement of its vessels. At the commencement of the anasarca, there is almost always pain in the region of the heart, often pain in the course of the biceps muscle of the left arm, and cramps in the legs; the patient cannot lie down, and the most easy position is bending over the back of a chair. When the anasarca is very considerable, there is little pain in the chest, as the effusion relieves the heart: the patient then attributes all his sufferings to the dropsy; the legs are tense, face swelled and bluish; great dyspnœa; urine scanty, high coloured; pulse quick and weak; surface cold; short, dry cough, with slight or no expectoration. The pathological appearances are, uniformly, enlargement of the heart itself; the walls, especially those of the left

side, thickened, and the cavities enlarged, but not in proportion to the hypertrophy; the pericardium glued together with layers of lymph, rarely recent. In the notes of thirty cases these appearances were uniform, and in all there was well-ascertained evidence of previous rheumatic fever. The prognosis is always unfavorable; but the disease, even when most severe, is more chronic than dropsy from disease of the heart arising from other causes, owing to its occurring in young persons, as the growth of their chest enables the impaired action to be better borne; and also, as it is not the result of excess, spirit drinking, &c., the other viscera are healthy.

Treatment. This varies according to the degree of inflammation of the pericardium going on at the time of the anasarca. If it has been immediately preceded by pain in the heart, and some swelling, redness, and pain in the limbs, inflammatory action exists, demanding moderate bleeding in a recumbent position, to prevent fainting, (from which the patient may not recover,) with three grains of calomel and a quarter of a grain of opium every four hours, a blister over the chest, and low diet. The most useful diuretic during this stage is from ten to fifteen grains of nitre, twice daily, in mint water. Dr. Seymour has never found colchicum useful. When the inflammatory symptoms have ceased, and the dropsical symptoms are alone urgent, the great object is to unload the system by diuresis; and here digitalis produces the happiest effect. Dr. Seymour's experience coincides with that of Dr. Withering, who introduced this medicine, and who found it most efficacious in a lax state of the system, when the effusion is great and the action of the heart feeble. The following formula Dr. Seymour has found more certain than any other:

R. Infusi Digitalis, 3iv.
 Liq. Oxymur. Hydrarg. 3ij.
 Aq. Menth. Sativ. 3viij.
 Tinct. Cantharidis, m. xxx.

Misce fiat haustus bis terve in die sumendus.

The tincture of cantharides is an active diuretic, and renders almost every other more effectual: it is contra-indicated where disease of the urinary organs is present. The above draught often operates with astonishing rapidity and effect: if, owing to the oxymuriate, it purges, a grain of opium may be given every night. Removing the effusion is obviously merely relieving one symptom; the enlargement of the heart remains, and the patient has a crippled existence. Where poverty obliges him to expose himself again to the causes of the disease, to toil, anxiety, and want, relapses are inevitable.

2. Anasarca from Enlargement of the Heart, principally with increased thickness of the parietes of the left ventricle and the septum between the ventricles.—This form occurs from twenty years of age to sixty, and is almost invariably attributable to intemperance. The anasarca is enormous; the abdominal integuments are so distended as to give the appearance of ascites; occasionally large vesications form on the legs, which burst and discharge serum, affording temporary relief. Pulse generally strong and quick; urine scanty, high coloured, not coagulating by heat or acids; tongue furred. The patient is obliged to be raised in bed, and complains of insupportable oppression. Face swollen, often

of a bluish tint; constant thirst; bowels generally natural, and appetite little deranged. Scarifications afford a momentary relief; but, in almost every hospital case, they are succeeded by erysipelas, gangrene, and death. Acupuncture gives less relief, but with somewhat less danger. Those remedies are indicated which, whilst they expel the fluid, will diminish the action of the heart. The first of these is elaterium. This may be given "where the strength is yet unbroken," according to this formula. Bloodletting should be premised.

R. Elaterii, gr. $\frac{1}{2}$.

Subm. Hydr., Pulv. Capsici, aa gr. ij.

Conf. Ros. Canin., q. s. ut ft. pilula; mane sumenda.

This will purge, and often produce severe bilious vomiting, which is very useful. It must be recollected that oppression imitates remarkably true debility. When elaterium has failed, or ceased to produce the due effect, Dr. Seymour has found large doses of cream of tartar, (first recommended by Menghini, an Italian physician,) act very beneficially. He directs an ounce of cream of tartar to be taken every morning in solution; or, if this acts too violently by stool, half an ounce will be sufficient. After the fourth day, its beneficial effects generally commence. The salt requires about thirty parts of boiling water for its solution.

3. Anasarca from increased Size of the Heart, with attenuated parietes. Such cases occur in constitutions broken by intemperance, or debilitated by affliction, long-continued anxiety, great watching, and sometimes after long-continued and profuse evacuations; more frequently in females than in males, and more common in advanced age than the other forms. The pulse is weak, often irregular; face swelled, and ghastly white; the integuments pit on the slightest pressure. The effusion is preceded by dyspnœa, violent palpitations and faintness on quick motion. The dyspnœa is not relieved by the effusion; for not unfrequently the cellular membrane connecting the lobules of the lungs is infiltrated also. Sudden death frequently occurs from rapid effusion into the chest or pericardium. This form is often complicated with dilatation of the arch of the aorta, and atheromatous and bony deposition under the lining membrane. In such cases, besides the symptoms of oppression, there are paroxysms of most severe pain, as in angina pectoris. In this form of the disease digitalis is particularly applicable, which is in accordance with Withering's original observations. It may be given with squill and mercury, thus: Pil. Hydr. gr. iij.; Scillæ exsic., Pulv. fol. Digitalis, aa gr. j.;—or as in the previous formula, with cantharides. This latter medicine Dr. Seymour was led to employ as a diuretic by the recommendation of Sir H. Halford; and its combination with the infusions of digitalis, of spartium, or of pyrola umbellata, he is convinced by repeated experience, produces the most complete diuretic effect. Dr. Seymour makes a digression on the value of cantharides in certain cases of paraplegia in early life: where it has been successful, it has acted as a powerful diuretic, and its utility may be explained by supposing the paralysis to have depended on effusion of serum, gravitating from the brain to the lower part of the spinal canal, which, according to Dr. Baillie, is one cause of the disease. From several years' experience, Dr. Seymour has found the most effectual diuretics stand in the following order of utility:

Infusion of Digitalis, with Tinct. Cantharid.
Nitrate of Potash,
Supertart. of Potash, with Sp. Juniper. c.
Pil. Hydrarg., Pulv. Dig., et Scilla exsicc., in pills.
Acet. et Tinct. Scillæ.
Infus. Pyrolæ umbellatæ.
Infus. Spartii.
Sp. Æth. Nitr.
Sp. Armoraciæ comp.

Dr. Seymour's remaining observations on diuretic medicines are judicious, but do not strike us as containing any thing new. When the anasarca is of recent date, these remedies will often suffice to carry off the water by diuresis, and "careful attention to diet, which should be nutritious but not stimulating, carriage exercise, pure air, and abstinence (as much as possible) from harassing and anxious occupations, will sometimes for years prolong the patient's life; but, where the swellings are of many months' continuance, little is to be expected except relief. Even here, life may be prolonged for a considerable time, under the most unfavorable circumstances, among the opulent. Not so with the poorer class of patients, in whom, in this country, intemperance has been the most active cause of their malady: when relieved of the fluid, which they consider to be the disease, they speedily return to spirit-drinking; and, if there be yet power in the system to secrete a sufficient quantity of fluid, they are again affected by their former swellings." (P. 56.)

Sudden subsidence of the effusion, unpreceded by a gradually increased flow of urine, or by some evacuations, is a very fatal symptom. In several cases which fell under Dr. Seymour's observation the patients never survived more than a month after this sudden subsidence of the effusion. Dr. S. attributes the event to the vital powers being no longer sufficiently strong to afford relief to the obstructed circulation by producing secretion from the capillaries.

Such is an analysis of Dr. Seymour's views on Anasarca depending on diseases of the heart. That which strikes us most forcibly is the scanty information on diagnosis. It appears to have been Dr. Seymour's object to shew that various forms of anasarca requiring various modifications in treatment are dependent on different diseases of the heart. As far as it regards the treatment of these different forms of dropsy he is peculiarly minute, and his remarks on the actions of medicines are valuable; but he has somewhat strangely omitted to give sufficient information on a preliminary matter which is certainly of considerable importance, the symptoms by which we are to be guided in the administration of these various remedies. We will begin with rheumatic disease of the heart, by which Dr. S. means chronic pericarditis, which is almost always attended with hypertrophy; in thirty cases in which this occurred, Dr. S. does not mention valvular disease, nor does he allude to it in the whole chapter. The symptoms on which the diagnosis is to be founded are—"pulse generally small and quick, sometimes intermitting, but very small compared with the action going on within the thorax; a tumultuous beating of the whole organ; this smallness of the pulse, compared with the violence in the action of the heart itself, arises from the inordinate growth of the organ, without a corresponding enlargement of the vessels of the heart."

We think it hardly necessary to mention that such symptoms are also

common to contraction of one or more of the orifices of the heart, and induration of the valves, and especially so when to these local signs are superadded such a general symptom of impeded circulation as anasarca, and a bluish tint of the complexion. The patients are said by Dr. Seymour to be under forty years of age; but this is of little importance in the diagnosis, as out of forty-four cases of diseased valves reported by Bouillaud there were no less than thirty-three under fifty years of age, and some of these were young children. The previous attack of rheumatism is by no means a decisive diagnostic symptom, as valvular disease is repeatedly traced to the same source. The only chance of distinguishing the two diseases is by the stethoscope; and if there is that importance in making a diagnosis which even Dr. Seymour attaches to diagnosis by separately discussing the treatment of anasarca depending on different diseases of the heart, what excuse can be made for the omission? Again: the only diagnostic mark given of hypertrophy of the heart is "a strong and quick pulse," and of dilatation of the heart "a weak, compressible, and often irregular pulse." Laennec, whose accuracy in these matters few are disposed to question, strongly affirmed that in diseases of the heart the pulse was a most deceptive symptom, and that in the highest degree of hypertrophy it was as common to find the pulse weak as to find it strong. A weak, compressible, and *often* irregular pulse is a partial guide to treatment, but certainly is common to many diseases; even if the pulse alone indicated these diseases in their simplest form, yet all practical men are aware that such characters of the pulse are not to be expected when there is a complication of visceral diseases, which must have been the case with patients whose constitutions (according to Dr. S.) were broken down by excess and misery. The practical importance which Dr. S. attaches to his divisions of anasarca, is that dropsy with hypertrophy is a more active disease, and with dilatation more passive, and consequently the treatment must be modified accordingly. But, as he founds his diagnosis on the pulse merely, which alone is a deceptive symptom, can his statements be regarded or proved, or his practical inferences be estimated as of any peculiar value?

Dr. Seymour adopts the theory of anasarca being generally produced by an impediment to the circulation of the blood through the heart, but his views on the nature of this obstruction do not appear to us to be altogether sound. He merely alludes cursorily to diseases of the valves; he only describes minutely anasarca depending on hypertrophy, and dilatation of the heart; but these alone are not sufficient mechanical obstacles to the circulation to explain in numerous cases the reason of the effusion; they can only be regarded as permanent predisposing causes having great influence, but not as exciting causes. A patient may have for years hypertrophy of the heart with or without adherent pericardium, or he may have dilatation of the ventricles without any dropsical symptoms whatever; but if such a patient should be attacked with bronchitis, or affected with any other complication disturbing the circulation, he may then have anasarca. The disease of the heart was the great predisposing cause, rendering him more liable to bronchial inflammation, but this latter was the exciting cause. We need not apologize for quoting the following passage from M. Bouillaud's work on the heart, reviewed in a former Number, (*British and Foreign Review*, No. IV. p. 335,) as it bears particularly on

one part of this subject. "In uncomplicated hypertrophy of the heart, the respiration is not materially affected till the organ has acquired such a volume as to encroach on the lung; yet the majority of writers on cardiac diseases have ascribed to hypertrophy, or active aneurism, such symptoms as the following: a violet hue of the face, and general congestion of the venous capillaries; passive dropsies and passive hemorrhages, dyspnœa, &c.; but these are, in reality, only so many signs of mechanical obstacle to the circulation, and indicate disease in the orifices, valves, &c."

The next chapter is headed "Cases of Anasarca occurring without organic disease of an internal organ," and these cases are referred to three causes. 1. To cold applied to the body; 2d, to eruptive diseases, especially scarlatina; and 3d, to debility, in chlorotic females, or from hemorrhage. But in his first and second divisions, Dr. Seymour may be accused of begging the question in assuming them to be independent of organic disease. The sudden application of cold or wet is so rarely followed by anasarca, and so commonly productive of suppression of the perspiration, that it may be well doubted whether this latter effect alone satisfactorily explains the effusion; there must be some peculiar predisposition to the affection; and may not this depend on latent organic disease, or, at any rate, an unusual susceptibility of some internal organ to take an organic disease? Dr. Seymour admits that in some of these cases the urine is albuminous; and this alone would lead to the suspicion that occasionally they may depend on renal disease. A case in point has been recently published by Dr. Mateer, of Belfast, in an excellent paper,* which we shall analyze in our Selections from British Journals. The patient, a robust girl of seventeen, became anasarca over the whole body, after exposure to wet: her urine was albuminous. She was bled locally and generally, saline diuretics were given, the urine became less albuminous, and in six weeks she was able to walk out; but she relapsed without any known cause, and in ten days died. On dissection, her kidneys were found to be in a state of granulation, and all other organs of the body healthy. With regard to anasarca following scarlatina, although Dr. Seymour places it under the head of Anasarca without organic disease, yet he confesses that its pathology is not well understood, and quotes P. Frank in support of the obscurity. But Dr. S. does not allude to the probability of its connexion with disease of the kidneys. The fact of the coagulability of the urine in many of these cases was observed by Dr. Wells and Dr. Blackall, many years ago, and has since been confirmed by other observers: if then in these cases there was anasarca and albuminous urine without renal disease, they would be exceptions to that coincidence which Dr. Bright has pointed out, and which subsequent observation has proved to be almost invariable. We do not doubt that the link which is now wanting will be supplied; we have before alluded to a paper in the *Edinburgh Medical and Surgical Journal*, in which Mr. Hamilton states that in several fatal cases of dropsy, after scarlatina, he discovered that yellow mottled appearance of the kidney, which now both at home and abroad bears the name of its discoverer, Bright. In the only case published by Dr. Mateer, of scarlatina followed by anasarca and

* *Edinburgh Medical and Surgical Journal*, Jan. 7, 1837; p. 73.

terminating fatally, the kidneys were alone diseased; and they were soft, livid, "having somewhat the appearance of hepatized lung;" a condition supposed by Dr. Bright to be a stage preceding that of granulation.

The treatment recommended by Dr. Seymour is, to bleed if the patient is strong, and to purge freely, either with calomel, followed by senna and crystals of tartar; or instead of senna, with a teaspoonful of an electuary composed of jalap two drachms, of supertart. potassæ half an ounce, with the same quantity of honey. If the patient is weakly, and his strength broken by previous delicate health and severe attacks of illness, diuretics should be given combined with bitters: as the infusion of digitalis and of gentian with liquor potassæ; or a mixture composed of a pint of the decoction of the *pyrola umbellata*, and half a drachm of tinct. *lyttæ*, two ounces of which to be taken every four hours.

3. *Anasarca* in chlorotic females, or after great loss of blood. Dr. Seymour explains the swelling of the ankles and legs, and the puffy state of the face, on the supposition that the blood stagnates in the right side of the heart, which organ is weak and unable to circulate the blood to the extremities. In thus explaining almost all cases of dropsy according to the theory of mechanical obstacle at the heart, it may be questioned whether Dr. Seymour is not rather one-sided: he somewhat undervalues the powers of the capillary vessels, and their independence of the heart: surely the weak condition of the blood itself and the debility of the capillary vessels would explain the phenomenon of swollen ankles as satisfactorily as the questionable hypothesis of the stagnation of blood in the right side of the heart.

The fifth chapter is headed "*Anasarca* from disease of the Kidneys," and it contains additional testimony to the coincidence pointed out by Dr. Bright between albuminous urine of low specific gravity and disease of the kidneys: Dr. Seymour has watched this test for many years in the wards of St. George's Hospital, and he has invariably found, "where cases with coagulable urine and low specific gravity proved fatal, that the kidneys presented a fac-simile of the representation given of them in this disease by Dr. Bright, in his Hospital Reports." (P. 73.)

"About half the cases of dropsy admitted into St. George's Hospital, in my experience, have coagulable urine: and in about one-third of such of these cases as have proved fatal, the kidney was the only viscus diseased; the other two-thirds had disease of the heart and liver in addition to granulation of the kidneys. Of those cases of *anasarca* without coagulable urine which proved fatal, the heart was invariably greatly enlarged; and these were often complicated with ascites from disease of the liver." (P. 76.)

Dr. Seymour's treatment is similar to that usually recommended: he has found with Dr. Bright supertartrate of potash the best diuretic, and, like Dr. Osborne, the vapour bath the most useful diaphoretic.

The second part of this volume treats of *Ascites*. This may coexist with *anasarca*: when this latter arises from renal disease, in Dr. Seymour's experience ascites is uncommon; when the heart alone is diseased, "a collection of fluid occasionally occurs in the peritoneal cavity; but it is subordinate, from its smaller quantity, in importance to that contained in the cellular membrane." "The principal cause of ascites is disease of the liver." The most frequent appearances of the liver in these cases are, its diminution to one-half its natural size, its being very hard, and having

its sharp edge blunt and rounded. The peritoneal coat is most frequently thickened either partially or occasionally entirely; the "partial thickening gives to the viscus the appearance of being puckered, not very unlike the lobulated structure of the calf's kidney." "Occasionally the whole peritoneal coat is thickened, of a milky-white colour, and the viscus beneath contracted," forming a hard and almost globular mass. In another condition of the liver attended with ascites, the peritoneal coat is transparent, but the secreting structure is nearly obstructed by the deposition of a reddish-white substance, by some believed to be lymph, the effect of inflammation, by others cholesterine; but "in either case, on a section of the liver, the whole seems to be made up of rounded masses, which, in some instances, can be separated from the cellular membrane which connects them."

The explanation which Dr. Seymour gives of the dropsical effusion consequent on these changes, is the pressure upon and obstruction of the minute branches of the *vena portæ* throwing back the blood on the trunk of the vein. It may happen, as Dr. Seymour supposes, that in some of these cases of contracted liver the peritoneal coat is thickened; but we are inclined from our own observation to agree with Dr. Carswell, who attributes the diminution in the size of the organ in such cases to disease of Glisson's capsule, which, as Mr. Kiernan has traced it, forms a sheath to the vessels and invests each of the lobules. Dr. Carswell* supposes this investing membrane to be converted into a fibrous tissue having great contractile powers: hence the diminished size of the liver, the pressure on the veins opposing the return of the blood from the viscera, and the constant consequence, ascites. Dr. Seymour justly opposes the idea that the effusion in such cases is owing to inflammation of the peritoneum, and the injurious deduction that it is to be combated with antiphlogistics; as he shows that in one series of cases the peritoneum is transparent. The external appearance of such a patient is thus graphically described.

"The distended abdomen is tense in every part, the swollen veins give to the whole a bluish appearance, while the hands and arms are wasted, the features drawn in and haggard, presenting the appearance of what has been termed '*facies hippocratica*;' the legs are also often wasted, and indeed always, early in the disease, but at length the pressure of the immense body of fluid in the pelvis prevents the return of blood in the iliac veins, and the lower extremities become anasarcaous. The pulse is quick and feeble; the tongue red, and rough with prominent papillæ, and sometimes aphthous; the urine is very scanty, and deposits a pink sediment, like the finest rouge; the thirst is insupportable; and the alvine excretions scanty and ill-coloured, the bowels being sometimes difficult to move, at others affected with diarrhœa." (P. 88.)

In such a condition of disease, we can only palliate by mild purgatives, light tonics to support the strength, and diuretics, particularly nitre, which relieves the craving thirst more than any remedy: many extol taraxacum, but Dr. Seymour never saw any obvious effect from its use beyond slight diuresis, or (when in large quantities,) relaxation of the bowels. In recent cases advantage is sometimes derived from rubbing a drachm of the linim. hydrargyri into the abdomen night and morning, and purging with calomel and senna with crystals of tartar every other day. Tapping has been recommended early, on the ground of diuretics acting better when

* See British and Foreign Review, No. IV. p. 463.

the distention is removed, which is sometimes the case; but Dr. Seymour does not advise it until purging and mercurial frictions have been tried. With this contracted and indurated liver the serum is commonly limpid; when it has been deeply tinged with blood, Dr. Seymour has invariably found some malignant tumour within the abdominal cavity, but he does not wish to be understood to say that such a disease cannot exist without bloody serum. Occasionally the serum is small in quantity and of the colour of whey, with shreds of lymph floating in it; this occurs in strumous patients at an early age, and is evidently the product of chronic inflammation modified by the constitutional disease. In some cases the effusion suddenly subsides, preceded by uncontrollable vomiting; or if tapping has been performed and does not again collect, violent pains in the bowels come on, with diarrhœa unmitigated by remedies, and in both instances death takes place.

“Where such cases have occurred, I have anxiously looked, after death, for some cause to explain these remarkable symptoms. A very unusual appearance has presented itself: the intestines are of a deep leaden blue colour throughout their whole extent, and the omentum of the same colour; the peritoneal coat covering the intestines thickened and opaque. Sometimes shreds of lymph, of no very recent formation, adhere to the convolutions, but in general the whole peritoneal covering of the intestines is only thickened equally throughout, and of this blue colour.” (P. 95.)

“In every case in which such symptoms have preceded the termination of the patient's life, the ascites has been occasioned by the peculiar, hardened, and contracted state of the liver, which I have attempted to describe.” (P. 96.)

Ascites may also arise from enlargement and induration of the liver and spleen, from repeated attacks of ague. If the patient is not constantly exposed to the miasmata, he may be generally permanently cured by active saline purgatives and mercurial frictions. The hydriodate of potash, in two or three grain doses twice daily, will sometimes succeed when other remedies fail.

The last chapter is devoted to the consideration of Ascites from that tuberculated accretion of the peritoneum so ably described by Dr. Baron. Dr. Cholmeley, of Guy's Hospital, first directed Dr. Seymour's attention to the fact that in this form of disease there is often vomiting of a deep leek-green liquid, precisely the colour of the beautiful fluor spar found at Alston in Cumberland. Dr. S. has never known this diagnostic symptom fail, but he does not remember to have seen this symptom present when the disease was accompanied with ascites, the evacuation preventing, probably, the serous effusion. As the effusion is the effect of chronic inflammation in strumous habits, neither tapping nor mercury given internally are advisable: if there should be tenderness on pressure, a few leeches or one bleeding may be necessary; but Dr. S. has relied on the hydriodate of potash, in two-grain doses, given twice daily in a draught of equal parts of cinnamon water and common water with a little syrup; and conium at night, if there is sleeplessness. Constipation is best relieved by half an ounce or six drachms of phosphate of soda given daily in a pint of beef-tea. This can be borne by stomachs which from organic disease reject every thing.

The remaining half of the volume before us is occupied with a translation of a work by Dr. F. C. Geromini on the cause and cure of dropsy. The object of Dr. G. is to prove that inflammation is uniformly the

cause of dropsy; but, although Dr. Seymour gives publicity in this country to this exclusive theory, he prefixes an announcement that he considers the Italian physician has failed in establishing his principal conclusions. The Italian treatise is evidently the production of an able and learned man; but of one who leans too much to the opinion that in all instances it is useless to seek for more than one cause to explain one effect; a proposition sufficiently philosophical in physics, but not applicable to the explanation of diseases affecting our compound and most complex organization. The staple of the essay is of a totally different sort to that which is estimated in this country. No new facts, no set of cases, are brought forward; but, instead, there is much ingenious reasoning on the various symptoms of the disease, and on the opinions of those who have written upon it. It belongs wholly to the rational and not to the empirical school. In this respect it is a fair specimen of many Italian medical books; and, in a country where there is such a prevailing tendency, it can create no surprise that the doctrines of Brown found a more congenial soil than they did in the land of their nativity; or that the theories of Darwin's Zoonomia should still be quoted with serious earnestness. We confess we are surprised that Dr. Seymour should have taken the trouble to translate this book; or, having translated it, that he should have thought it advisable to add it to his own, thereby doubling its size and price, and adding little to its value. Dr. Geromini's work was published twenty years since!

To conclude: although we have not read Dr. Seymour's work with unqualified admiration, yet we hesitate not to say that he has written a useful book, one that may be perused with benefit and with pleasure; bearing ample evidence that its author writes from his own observation at the bed-side and the dissecting room; a circumstance which imparts a freshness, even when there is no originality, and which mere compilations, however excellent, never can possess. The real excellencies of the book make us regret the more its defects. We are at a loss to reconcile the importance which is attached to diagnosis, and the minute attention given to details of pathological anatomy, with so obvious a neglect (implying contempt) of the greatest discovery of our age,—the physical examination of the chest. Dr. Seymour writes fluently and apparently with ease; his style is colloquial rather than classical; and he occasionally introduces huge parentheses, which are sufficiently long and digressive for notes. His treatment is always cautious and judicious; and his minute observations on remedies bespeak much attention to that important part of the studies of the medical practitioner.

ART. IX.

A Practical Treatise on the Management and Diseases of Children.

By RICHARD T. EVANSON, M.D., Professor of Medicine, and HENRY MAUNSELL, M.D., Professor of Midwifery, in the Royal College of Surgeons in Ireland.—*Dublin*, 1836. 12mo. pp. 257.

THE publisher of the volume now before us was certainly justified in informing its authors, "that a concise practical work upon the management and diseases of children was a desideratum in British medical

literature;" for, although we possess several works on the subject, we have none calculated to convey to the young practitioner an accurate view of the actual state of our pathological and practical knowledge in this important branch of medical science. The treatise of Drs. Evanson and Maunsell, although (as we shall have occasion to show in the sequel,) not coming entirely up to our idea of what such a work should be, in every respect, is certainly calculated, in a great degree, to supply this defect in our literature. It is, at any rate, the best book we have on the subjects of which it treats; and as, on this account, it is likely to be extensively read by many who are incapable of judging of it critically, we feel it to be our duty to point out freely its defects as well as its merits. In doing so, we trust we shall not be regarded by its very estimable authors as actuated by an unfriendly spirit. This, most assuredly, is not the case; and, in fulfilling our duty towards our readers, we hope we may be able to offer some hints not unworthy the consideration of the authors, when they are called on (as will doubtless be the case, ere long,) to prepare a second edition of their treatise. In executing our task, we shall take a rapid view of the whole range of the subjects treated of; and, if we dwell as long on the parts which we find fault with as on those which we approve, it must be recollected that a systematic treatise, not pretending to originality, does not afford great scope for extract or analysis: we shall notice all that we disapprove of, but we must pass over without comment much that we commend. We may premise, that the work being the combined production of two authors, the different chapters are distinguished in the table of contents by the names of their respective writers.

Chap. i. *On the Peculiarities of the Infant Structure and Constitution*; by Dr. EVANSON. The subject is essentially introductory, and, as such, is handled in a very creditable manner by its author. Much useful general knowledge is brought together in an agreeable and simple style. The physiology of infantile life is well depicted, and appropriately interspersed with practical deductions. We quote the following observations on the cerebro-spinal system as a specimen:

"The general sensibility is acute, and the nervous susceptibility in the infant remarkable; so that all impressions are violently felt, and sympathetic affections are presented in a very aggravated form, and are very prone to occur, constituting a peculiar feature in the infant constitution, which may be emphatically said to be nervous. The large endowment of nervous matter, and its peculiar susceptibility of impression from the softness of its texture, appear to confer this quality, which is never lost sight of in the treatment of infantile disease; a remark as old as the time of Boerhaave, but which is nevertheless too frequently forgotten." (P. 13.)

Chap. ii. *Management and Physical Education of Children*; by Dr. MAUNSELL. In pointing out the necessity for a child enjoying the warmth of its mother's breast, the author has quoted the valuable physiological fact established by Dr. Edwards, "that the heat of mature infants at birth is from three to five degrees less than that of adults, varying between ninety-three and ninety-five degrees; that the heat of premature infants is still less; and that the power of producing heat being in all young animals at its minimum at birth, they have not the same capability of resisting a diminution of their temperature from exposure to cold, as adults." (P. 33.) Dr. Maunsell points out the necessity of

removing the *vernix caseosa* from the skin of the new-born child; and he thinks the use of "warm water and a fine sponge" sufficient for the purpose. He does not find that soap is required. In a note he adds, "If any authority were wanting for the removal of *vernix caseosa*, we have it in the practice which commonly obtains among animals, of licking their offspring immediately after birth." The observation is perfectly correct; but still, as the practice is not *usually* followed in these countries, we are surprised that other means for its removal were not suggested, especially the well-known family recipe of melting a piece of fresh butter in a little thin white wine, as used upon the continent, especially in France, since the time of Portal, (A.D. 1667:) this forms an excellent liniment, and is much better than the cold cream, lard, &c. used in this country. We cannot but defend Dr. Dewees against the charge of using contradictory arguments, merely because he recommends giving the child a teaspoonful or two of molasses and warm water, to assist the evacuation of the meconium, and at the same time observes that the first milk is purgative; because he adds, "*this rarely fails to succeed, especially when aided by the early secretion of the mother's milk.*" Dr. Maunsell, to our surprise, questions this fact of the purgative quality of the first milk, and founds his opinion on that of Professor Joerg, of Leipzig; an authority of but little weight with us, more especially when opposed by such names as C. White, Boer, Dewees, Naegelé and others. We conceive that Dr. Dewees has not rendered himself so open to the charge of recommending "the immediate employment of purgatives," (p. 38,) as the author himself, who says that, "where the abdomen of the child is full, and no evacuation takes place for three or four hours after birth, it will usually be found advantageous to administer half a drachm of oil, provided we can procure it fresh, and free from rancidity."

We feel compelled to dissent entirely with the following passage:

"We have already stated, that the child should be put to the breast as soon as the latter contains anything for it to extract: this generally happens when the mother's system has been relieved, by sleep and ten or twelve hours' rest, from the fever which is always more or less attendant upon labour. Unless there has been *some* secretion of milk, it is better not to apply the child, as it becomes disappointed by continued ineffectual attempts at obtaining nourishment, and there may be subsequently some difficulty in getting it to engage seriously in the business of sucking." (P. 41.)

We ought not to delay applying the child *until* milk has appeared; it should be applied, as Mr. C. White has well expressed it, "in a few hours after delivery, as soon as she has had a little rest, whether there be signs of milk or not." The child thus obtains the first milk, which, as Mr. White observes, is "thin, stimulating, and purgative, for the wise purpose of clearing the child's stomach, bowels, &c." The child draws out the nipple with greater facility, and encourages the earlier and more gradual secretion of milk. The instinctive appetite for sucking is preserved, accumulation of milk in the breast is prevented, and full and permanent contraction of the uterus, which is of such importance, is ensured. Dr. Dewees's observations upon this subject are peculiarly valuable: we would willingly quote them, but our limits do not permit; we therefore refer our readers to his *Compendious System of Midwifery*, § 504.

Dr. Maunsell's observations on the clothing of children are very judicious, and are made in language so clear and simple as to be well worthy the attention, not only of medical men, but of the general reader.

"We wish we could, as a commentary upon the foregoing passages, adequately depict one of those miserable victims of parental vanity, whose appearance in our streets will sometimes, upon a March or November day, strike cold into our hearts. The cap and feathers set upon, not covering, the child's head, and probably of a colour and richness contrasting mournfully with blue ears, sharpened nose, and shrunken cheeks, in which cold has assumed the features of starvation; the short kilt and Highland hose, exposing between them cracked and quivering knees, altogether require for their description more graphic power than we presume to lay claim to. We hope, however, that we have said enough to call attention to the absurdity of the 'hardening' system, as it is called, and to show that a clothing, regulated so as to obviate the rigors of our climate, is both demanded by our sensations and sanctioned by our knowledge." . . . "In every article of dress, the principle should be carefully followed of placing no constraint upon the motions of any part; for the boy, tight-waisted trousers or braces, and for the girl, stays of all kinds, must be forbidden during the whole period of childhood. The injuries that may be committed upon the organs in the chest and abdomen by the latter article are well known to be of the most serious nature; the chest may be completely altered in shape by a continued pressure, and the lungs diminished in their capacity, while at the same time the stomach and liver are driven from their natural position, and made to press upon the other organs of the abdomen." (P. 59. 60.)

The importance of a well-ventilated room for the child to sleep in, and the necessity for its enjoying a regular and sufficient quantity of rest, are pointed out by the author.

"No definite rules can or ought to be laid down as to the number of hours' sleep to be allowed. One child will require more or less than another; and our only safe guide will be to train it to go to bed shortly after its last meal in the evening, and then to permit it to sleep without disturbance, until it wakes of its own accord upon the following morning." (P. 65.)

We fully agree with the author in reprobating the frequent use, or rather abuse, of calomel in very young infants, but think that the milder preparation of Hydr. cum cretâ ought not here to have passed unnoticed. In most instances where the bowels have been in an unnatural state as respects the *quality* of the evacuations, we think most practitioners must have found small doses of this mercurial, combined with a little soda, (or rhubarb, where there is diarrhœa,) of great service.

We wish that mothers were satisfied with attending to the healthy growth and bodily development of their children, during these first years of their existence; and consider the importance, nay absolute necessity, of pure air, plenty of light, active and cheerful exercise, warm clothing, simple nourishing food, and regular hours; instead of attending so much to the cultivation of the mind at a period of life when the brain is not fully developed, and when its premature and precocious development must inevitably be at the expense of the bodily powers and growth. Dr. Maunsell has very aptly quoted a passage from "The Doctor," a work of great talent, which is strikingly to the point: "We do not, however, attempt to force their intellectual growth. Do not feed them with meat until they have teeth to masticate it. There is a great deal which they ought to learn, can learn, and must learn, before they can or ought to understand it." (P. 76.)

The two succeeding chapters are by Dr. Evanson, viz. Chap. iii. on the *Peculiarities of Disease*, and Chap. iv. on *Infantile Therapeutics*. The former, although containing nothing new, is well digested, and the young practitioner will derive much valuable and practical information from it. Chap. iv. we cannot but consider in great measure unnecessary, and, being of considerable length, has added needlessly, we think, to the size of the book.

Chap. v. *Accidents and Diseases occurring at the Period of Birth, or shortly afterwards*; by Dr. Maunsell. The first article is on *Asphyxia neonatorum*. The subject is hardly so well handled as the reader is entitled to expect, from the excellence of the preceding chapters. The distinction into two species, the *sthenic* and *asthenic*, is totally disregarded; and yet this is of importance. In one there are all the symptoms of plethora and congestion,—the face flushed or purple, features swollen, skin turgid and hot, the cord tense and beating strongly; in the other, the prominent symptoms are those of collapse and atony,—pale face, contracted features, lips blue and flaccid, the jaw fallen, the surface cool, the extremities becoming rapidly cold, the cord flaccid and beating feebly. These are very opposite conditions, and require also very different treatment. In the one case, the loss of a little blood from the cord will seem, as it were, to remove the obstacle, and respiration instantly follows; in the other case, the warm bath and stimulants to the præcordia must be had recourse to.

The subjects of *Imperforate Anus and Vagina* are passed over very cursorily, so as to amount to little more than a mere enumeration of the fact. No allusion is made to Richter's admirable observations. We cannot think the author justified in so doing, because "the case belongs to the general practice of surgery," more especially as he is professor of midwifery to the Dublin College of Surgeons.

The article on *Icterus neonatorum* is liable to the same objection. No mention is made of Boer's valuable observations on this subject: those of Dewees and Henke ought also to have been mentioned.

The article on the *Purulent Ophthalmia of Infants* is simple and practical. Most truly do we agree with the author when he says, "We have, in a large majority of instances, traced it to gonorrhœal or leucorrhœal discharge, existing in the mother before parturition." In his treatment the author has not mentioned warm saturnine lotions, a form of collyrium which we have found of great service.

Chap. vi. *Dentition*; by Dr. Evanson. This subject is rather too briefly handled, considering its importance. The name of John Hunter does not once occur; and many other names of more modern authors, which deserve notice, might also have been mentioned with propriety and advantage.

Chap. vii. *Diseases of the Digestive Organs*; by the same. Among the "affections of the mouth" is aphthæ; but the account of it is neither very clear nor practical. Dr. E., in our opinion, has followed the French writers too closely, and, in imitating their attempts at minute and useless distinctions, has forgotten to give us the more important results of his own experience. Many of these modifications of mucous irritation and inflammation occur only under circumstances of the greatest neglect and exhaustion, and are seldom witnessed in this

country. The terms "*Stomatitis*," "*Muguet*," &c. are certainly objectionable in an English treatise; nor do we see why the name and views of M. Billard are to be held up, to the *entire* exclusion of Underwood and Dewees, both of whom have given an infinitely more correct and accurate description of aphthæ. Dr. Evanson has mentioned a species of gangrenous ulceration of the mouth, which we are happy to say we have only known from description.

"A particular form of gangrene of the mouth, without any preceding inflammation, occasionally attacks infants, especially such as are very feeble at birth or broken down by disease. An œdematous circumscribed swelling appears on the cheek, with a central point more or less hard, over which occurs a dark red spot. This spot may appear on the inside or outside of the cheek, and the skin over the œdematous part is characterized by an oily appearance. An eschar forms from within outwards on the central point, and the soft parts mortify, often extensively, down to the bone, so that the parietes of the cheeks and gums are destroyed, falling off in shreds, mixed with a dark sanguineous fluid, and accompanied by a very fetid odour. No disease can be more frightful or more formidable than sloughing of the mouth in children: recovery seems impossible when once the disease has set severely in, the child sinking beneath the constitutional disturbance, independently of the local ravages of the disorder; which, however, are often such as to render recovery not to be desired, so frightful is the deformity necessarily entailed. The fever, which may be at first high, soon sinks into low typhus; the bowels become greatly deranged, and diarrhœa often attends at the close." (P. 222-3.)

We cannot agree with our author in recommending opium as "our chief resource" in the vomiting and purging of infants produced by improper food. Besides the peculiar and dangerous effects which it produces at this early age, and which have been so well described by Dr. John Clarke, opium does harm, by masking the symptoms and concealing the real features of the case from the practitioner. Not only must the diet be changed, but such means taken as shall correct the acidity which so frequently prevails, and induce a healthier action in them. The Hydrarg. c. cretâ, with a little carbonate of soda, is here a very useful combination: after one or two doses, two or three grains of pulv. Rhæi may be substituted with advantage; the rhubarb acts as a stomachic, and tends to check the diarrhœa. Where the purging is extremely violent, mild astringent injections will be of service; but these cannot be ventured upon until a healthy state of the secretions has been established.

In speaking of yellow evacuations, the author has not noticed a species of diarrhœa, which we have occasionally met with, where the intensity and brilliancy of the yellow colour is far beyond that produced by healthy bile; the smell is neither feculent nor sour, but peculiarly faint and sickly; the child rapidly grows thin, and sinks into a state of collapse much sooner than might be expected from the extent of the diarrhœa. We have found mercurials here to be of little or no service. Mild doses of dilute nitric acid, with a gentle tonic in some aromatic water, have produced great relief; the evacuations have become green, and this has been followed by the natural bilious colour. The author considers that bright yellow stools are the results of "high irritation or inflammation of the mucous membrane;" and in this respect he is supported by Dr. Campbell, but the cases just alluded to do not appear to

arise from this cause. The utility of nitric acid and tonics has not been unnoticed by the author, but it is to be regretted that the cases in which these medicines are indicated had not been more clearly specified. Dr. Evanson's observations on these medicines deserve attention.

"The bitter infusions make excellent vehicles for the alkalies in such cases, and are not employed in the bowel complaints of children so frequently as they deserve; having the power of restoring the functions of the stomach, while they correct the irritable state of the bowels. Of these bitters, the infusion of hop is particularly eligible for its sedative properties, that of gentian and chamomile flowers as a tonic, and the alkaline carbonates may be exhibited in either of these; but the bitter which most decidedly possesses an astringent power is the infusion of simarouba. This is not compatible with the alkaline carbonates; but one of the most useful compounds that can be employed in protracted cases of diarrhœa, is a combination of simarouba, nitric acid, and opium; a prescription which common repute attributes to the late Dr. Baillie, of London: it may be ordered as follows for children:—*R.* Infusi Simaroubæ, ζ iss.; Acidi Nitrici dil. gtt. iv.—vj.; Syrupi Caryophyl. ζ iv.; Tinct. Opii, gtt. vj. One or two teaspoonsful of this mixture to be given in some barley-water three or four times a day.—Other mineral acids have been recommended as astringents in cases of diarrhœa, but the nitrous acid decidedly deserves the preference, appearing to possess some power of allaying the irritability of the mucous membrane." (P. 267.)

This chapter is confessedly on a very important subject, and therefore its length may be considered as unavoidable: it contains much valuable and practical matter; but a number of affections are separately treated of, which ought to be considered as so many results of the same cause and its numerous modifications. It appears to us that there has been some unnecessary repetition, and thus the article rendered longer than it otherwise would have been. By viewing these diseases as it were from one point, we think that the subject would have been rendered more clear and simple.

Chap. viii. *Diseases of the Respiratory Organs*; by Dr. Maunsell.—These affections are well and clearly discussed. The treatment is simple and judicious; but why is no reference made to any English author? why are also Dewees and Henke left entirely unnoticed? Dr. M. appears to consider that the only form of croup is inflammatory, and that there does not exist a spasmodic form of this disease. We cannot agree with him in this respect, as we have distinctly seen an affection which we think entitled to this name, arise from gastric and intestinal irritation; the symptoms being aggravated by antiphlogistic treatment, and relieved by alteratives and laxatives. The real nature of the case will be detected by carefully watching the respiration: we shall find that short intervals of natural breathing occur suddenly every now and then. The spasmodic breathing, the dry, hacking, spasmodic cough of children are modifications of the same state, and arise from the same cause. We think the author, in noticing the opinions of Dr. Ley respecting the disease commonly termed "spasm of the glottis," does not do full justice to that physician; but we have treated this subject so fully in a preceding Number, that we cannot enter on it at present.

Chap. ix. on *Eruptive Fevers*; by Dr. Maunsell. The four articles which this chapter contains,—viz. on Measles, Scarlet Fever, Small-pox, and Chicken-pox,—are well written; the subjects are handled in a clear and practical manner, and are rendered still more interesting and valu-

able by some well-selected quotations from Sydenham: we read the whole chapter with much satisfaction, and recommend our younger medical brethren to peruse it attentively.

Chap. x. *Vaccination*; by Dr. Maunsell. A note informs us that the "matter of this chapter is now republished from a paper, by Dr. Maunsell, in the fourth volume of the Dublin Medical Journal." It gives a very comprehensive view of the history of, and the more important points connected with, vaccination; and looking upon it, *per se*, as an essay on Vaccination, we must consider it as an excellent digest of whatever is valuable upon this subject; but we cannot think it adapted to a work like the present, which ought to be purely practical, and where it is highly desirable to reduce the size, and therefore the price, within the smallest compass.

Chap. xi. on *Constitutional Disease*, is also by Dr. Maunsell. The subject of scrofula is well handled, although, in our opinion, at greater length than is required for a work like this. His observations on the pathology of this disease are well worthy of notice.

"These marks [of scrofula] are all such as denote a preponderance of the white tissues and fluids of the body over the red, or, in other words, of lymphatic over the arterial and venous systems. Our physiological knowledge leads us to the inference that the strength, and vitality, and capability of resisting disease possessed by animals (at least, warm-blooded animals,) is in a direct ratio with the red tissues and fluids in their bodies over the white; that, in fact, the white tissues have naturally a lower degree of those qualities than the red; and, the more they abound in the system in relation to the others, the less power will there be for struggling against morbid conditions." (P. 465.)

We perfectly coincide with this view of the subject: it is founded on true physiological as well as pathological principles, and has been for some years our guide in the treatment of these diseases. But why are the names of Drs. Graves and Stokes omitted here? The published lectures of the latter gentleman on this subject are very valuable and original, and have been before the public for some years. Dr. Maunsell's treatment of scrofula is judicious, and founded on the above principles. The combination of sarsaparilla and iodine is excellent, but we think he underrates the value of chalybeate medicines. The combination with iodine in the ioduret of iron, which we can recommend as a very useful form, is not noticed.

The subject of Pemphigus is discussed under the whimsical name of "*Burnt holes!*" In our review of Dr. Collins's work, we deprecated the use of these popular expressions, which, to the greater portion of English readers, must be more or less intelligible. In this point of view, "*green scour*," "*gum fleam*," for gum lancet; "*needing*," for tenesmus; "*stupes*," for fomentations, are all objectionable. We are glad to find that the term "*hippo*," for ipecacuanha, has been scarcely, if at all, used in this work; we could have wished that the words "*muguet*," "*diphtherite*," "*exanthem*," had also been excluded. Dr. Maunsell has only noticed a species of gangrenous pemphigus, described by Dr. Stokes, sen., of Dublin; and takes no notice of the works of Willan, Bateman, &c. Dr. Willan's description of Pemphigus infantilis deserves attention; the more so, as a modification of it has been very prevalent in London during the last two or three years.

Chap. xii. on *Diseases of the Cerebral System*," by Dr. Evanson.—These diseases, we think, might have been better incorporated into the sixth and seventh chapters, with the subjects of which they are so closely connected. Dr. E.'s observations on Hydrocephalus are well arranged and digested, and afford much useful practical matter.

We here close our notice of this work. We repeat, that it possesses much merit; and, from being furnished with a number of well-assorted prescriptions, will prove very useful to the young practitioner, to whom we earnestly recommend its perusal.

The book is closely but well printed; remarkably free from typographical errors; and, considering the quantity of matter it contains, is published at a very moderate price.

ART. X.

Darstellungen und Ansichten zur Vergleichung der Medicin in Frankreich, England, und Deutschland, nach einer Reise in diesen Ländern im Jahre 1835. Von Dr. ADOLPH MÜHRY, Practischem Arzte und Wundarzte in Hannover. Mit zwei Plänen.—Hannover, 1836. 12mo. pp. 283.

Comparative View of the State of Medicine in France, England, and Germany, from a Tour made in those Countries during the Year 1835. By Dr. ADOLPH MÜHRY, &c. With two Plans.—Hanover, 1836. 12mo. pp. 283.

IN addition to medicine, Dr. Mühry has also touched upon the state of surgery and ophthalmology in the countries he visited. The work is concise, and written in a lively style, differing in this respect from the verbose phraseology and *infarcted* sentences with which German writers so frequently overwhelm the reader.

After taking a topographical survey of the hospitals and medical schools of Paris, London, and Edinburgh, the author ingeniously endeavours to prove that it is to the different meaning entertained of *inflammation* that we are to ascribe the fundamental differences between French and English medicine. In England, the doctrine of inflammation is more particularly associated with the principles of surgery; in France, with those of medicine: and this is true not only in point of theory, but (what is far more important) in actual practice. The development of the doctrine of inflammation as applied to surgery in England, is due to the labours of John Hunter; as applied to medicine in France, to M. Broussais.

"Hunter's admirable researches deserve our highest praise. While investigating profoundly the natural structure of animals and plants, he was not neglectful of medicine. Yet certainly, in expounding anatomy, both human, comparative, and pathological, and preeminently the processes of inflammation, he rather exalted the surgical branch of the subject than the medical. He clearly demonstrated, amid the confusion of conflicting opinions, that pus was not formed without preceding inflammation; applied with singular felicity and skill the processes of secretion, granulation, adhesion, and absorption, to surgery; and made the subject of inflammation the very centre point of all pathological enquiry. Hunter

having thus rendered inflammation subservient to illustrate the consequences of wounds, and the condition of the blood and vascular system in its symptoms and terminations; and having pointed out the modifications it underwent in certain textures anatomically different, as likewise its specific nature, thereby contributed in a great measure to change the whole face of practical medicine in England.”—

“His disciples, following the track thus plainly indicated, took for their groundwork the anatomy of regions, and viewing inflammation exactly as their master had unfolded it, and subsequently annexing to it the theory of irritation, promulgated by Sir A. Cooper, they thereby reduced the treatment of surgical diseases to such a pitch of simplicity and clearness as cannot fail to excite the wonder and emulation of other nations.”

After the doctrine of inflammation had in this manner obtained a prominent place in science, its application in France took a somewhat different turn: there it ceased to maintain the surgical character it had acquired in England, and assumed the medical. This was mainly owing to the discoveries and doctrines of Bichat, Pinel, and especially of Broussais. He pushed to its maximum development that doctrine of inflammation to which the labours of Bichat had furnished the clue; and subsequently, as is well known, founded on its basis a new system of medicine.

“In looking at the state of medicine and surgery in England and France, it will be seen, in the former country, that surgery is in perfect correspondence with the sure and simple knowledge of *surgical* inflammation, while medicine is less associated with inflammation,—whether too little, is not easy to determine. In France, inflammation preponderates so much in medicine as to constitute an almost uniform local affection; while in surgery it is defective without doubt. Thus the medicine of England is not fettered by the unsettled notions of *medical* inflammation of the French; while the surgery of the latter stands in need of a more intimate acquaintance with, and adoption of, the definite *surgical* inflammation of the English authors.”

A succinct account of Broussais’ speculations closes with some allusions to the declining reputation of the Professor, and the little esteem now manifested towards them.

“In how much consideration Broussais has been held is well known. Now this is no longer the case. You see him seated in the chair of the vast amphitheatre of the Ecole de Médecine, arrayed in the black gown and red cap of the Faculty, and with blue spectacles on his nose; of a sudden his eye is fixed as the word *irritation* flashes across him; he becomes more and more excited, and at last turning to his auditors, who occupy little more than a single bench, exclaims with energy, ‘*Pourquoi donc, jeunesse, ne se trouve personne entre vous avec assez de bons sens pour s’opposer contre cette opinion de symptômes généraux, afin que la science marche, marche?*’”

The subjoined document from M. Charles Dupin, the distinguished statistician, may serve to corroborate the above statement as to the gradual declension of *Broussaisism*.* Until the year 1823, France exported upwards of a million of leeches. Afterwards, she not only drained her own waters, but imported quantities from England and Germany, in order to meet the increasing demand; for, with Broussais and his followers, it was “*toujours les sangsues.*”

* Le Temps, 7 April, 1836.

	Import.	Export.
1820		1,157,920
1823	320,000	1,188,855
1827	33,634,494	196,950
1833	41,654,300	868,650
1834	21,885,465	868,650

Dr. Mühry has formed a very just estimate of French therapeutics. It is remarkable that, with all the light to be derived from morbid anatomy, the treatment of disease should be so deplorably bad in that country.

"Therapeutics, the end and aim of all medical investigation, does not obtain that attention it justly demands in France. How very few internal remedies are permitted according to the dogmas of Broussais, is well known. It is long since the English physicians told their French *confrères* that they allowed their patients to die, while the latter imputed to the former that they killed theirs. When one hears the prescriptions ordered in the sick wards of a Parisian hospital, he is struck with astonishment at the meager diet and scanty medicine allotted to each individual. *Un quart d'une portion, un pain, un bouillon, décoction de riz, sirop de gomme*, constitute at once the nourishment of the patient and the *excipient* for his medicine." . . . "The supply of victuals is so inconsiderable, that many invalids, especially those suffering from chronic ailments, are heard piteously imploring the physician, while settling their diet-table for the day, to grant them a greater portion or small additional loaf of bread. Indeed, they may well complain of pain at stomach; hunger is the cause of it. The numberless potions forced upon them induces by and by squeamishness; food is loathed and rejected; and, when a cure is accomplished, it is rather through starvation, or withholding aliment, than by the employment of medicaments. *Lavemens* of various sorts are, on the other hand, in great repute; such as *lavements purgatifs, laxatifs, astringents, calmants, camphrés, de belladonne, oxymellés, &c.*" . . . "Every French practitioner is at any rate so far imbued with *Broussaisism* as to imagine the alimentary canal always more or less affected in disease, and hence is bound to abstain from the more efficacious internal remedies. Should neutral salts, calomel, opium, or antimonials be exhibited, it is merely for the sake of temporary trial; they soon give place to other things." . . . "The practitioner strives rather to procure a victory over the disease than the recovery of the patient; disregarding the general habit of body for a *localization*. With avidity will he abstract some *palettes* of blood from a subject extenuated by fasting and disease; stifling instead of cherishing the few remaining embers of life. It is thus manifest that, if French medicine be preeminent in diagnosis, based on anatomico-pathological research, it is very far behind in therapeutics."

Dr. Mühry has been at some pains in collecting materials for his chapter on English Medicine. He fairly gives us credit for being excellent in observing, in describing, and in treating disease. The several points touched upon are familiar to our readers; we shall therefore solicit attention to some matters of more novel interest.

The nasal catheter of Gensoul at Lyons seems to be an instrument of utility.

"It is remarkable how easily catheterism of the nasal canal can be effected by its means. The catheter is hook-shaped; the extremity, bent at a right angle, is about an inch in length, suited to the distance of the lower orifice of the nasal canal from the nostril, and likewise to the length and form of the canal, with a slight spiral turn. Conducted into the nostril, while the handle lies vertically upon the upper lip, it remains in the inferior meatus on the floor and outer walls; the point of the catheter will now be found anterior to the aperture of the canal, and a slight inclination outwards, together with a simultaneous and gradual eleva-

tion of the handle, causes the point to slip in; with a little assistance, the instrument passes up to the lachrymal sac. In the dead body, the point of the instrument may be seen protruding beneath the skin. On withdrawing the catheter, the handle is to be brought back to the vertical position with the upper lip. When we wish to procure mechanical dilatation, then is the method of arriving at the canal from below in every case preferable; no incision is required to be made; you are thus independent of the uncertain operation of puncturing from above inwards; a procedure which many eminent oculists hold in secret abhorrence. An additional advantage is, that injections, which, in certain morbid conditions of the mucous membrane of the canal, prove beneficial, can be thus efficaciously applied, and catgut bougies may be inserted in the same way. The introduction of Gensoul's nasal catheter is very simple. I have repeated the operation a number of times in succession on the dead body, and never once failed; and also practised it on the living subject in several instances; it did not occasion any considerable titillation."

Velpéau has recently introduced into practice a novel method of treating acute inflammation of the conjunctiva and sclerotic. It consists in covering the whole eye with a blister. He recommends you, before applying it, to exercise gentle friction on the skin of the eyelids with a fold of linen moistened in vinegar. The epispastic plaster must be large enough to embrace the whole surface of the orbital cavity: it is not necessary to shave the eyelids or eyebrows beforehand. The eyelid being closed, the blister is put on, and maintained *in situ* by charpie and a bandage; the charpie is useful for filling up interstices. On the following day it is removed, and the vesicated surface bathed with tepid water. In two or three days the surface heals, and the inflammatory symptoms subside.

We shall conclude our notice of this little work with a few remarks taken from it, on the speculative views of some of the author's countrymen.

Towards the close of the last century, that mysticism which pervaded German philosophy extended itself to medicine. A sort of triple alliance ensued betwixt medicine, philosophy, and poetry. All was ideal, nothing positive. Apollo resumed his double reign: physiology was expounded in stanzas, pathology became the theme of heroic metres. The methods of research were synthetical rather than analytical; general rather than special. In comparing the relation of objects, the most far-fetched analogies were sought after. Mysterious symbols were introduced, in order to characterize unknown relations. That the Germans were at this time not so much philosophers as philosophical poets, is evident from the circumstance of their pursuing intellectual beauty rather than scientific truth. They were in quest of the shadow, not of the substance. They dwelt so much in the regions of fancy, that the epithet "*geistreich*" (spiritual,) denoted the highest praise. An idea became intrinsically valuable, independently of its truth or applicability; and colossal theories were constructed upon the most unstable bases. Among other innovations, a new nomenclature started up, with terms borrowed from "their philosophy," whose meaning was intelligible only to the initiated few. During this period, which well deserves the appellation of *the ideal*, medicine in Germany was comparatively stagnant; for the time which might have been devoted to extend the boundaries of practical knowledge, was spent in fruitless speculation. Meantime

many important discoveries were made in France and England. There the votaries of science, following the dictates of reason, not the vagaries of imagination, contributed eminently to improve various branches of the healing art.

One of the most remarkable of these *ideal* systems now prevalent is that of Jahn and Carl Hoffmann, of which we purpose laying an account before our readers, in a review of the curious work of the former author, entitled "*System der Physiatrik.*" The fundamental principle of this system is, that all the classes of diseases in man are analogous to, if not identical with, the natural conditions which distinguish particular classes of animals. Thus, rheumatism is analogous to the nature of insects; inflammation to that of birds; dropsy to that of hydatids, &c.

Another of the Ideal or Poetical systems, is that of Schönlein. This physician was formerly professor of pathology at Würzburg, and is now of Zurich. His system is called the *natural system*, and is in great vogue. Less purely speculative than many other German systems, it pretends to consider medicine as a natural science. There are, however, certain essential points of difference. Natural science looks upon disease as an aberration of the normal mode of vitality; in other words, as a morbid condition. The scheme in question, on the other hand, perceives in disease not a deviation from the healthy standard, but a peculiar vitality. Disease is in itself an organism. The school of Schönlein goes directly to the malady; it describes without explaining it. It attempts no definitions, but, as in the instance of organisms, only descriptions; and, assuming a poetical licence, it transforms the disease into a plant. In order, therefore, to sustain and follow out the comparison, there has emanated not merely a natural, but a *botanical* system. Hence diseases are distinguished into families and species; we find phanerogamic and cryptogamic ailments; mention is made of the relations of morbid vitality, and of the physiology of disease,—of the natural history of disease,—of the seeds of disease,—of its geographical distribution,—of the misshapen forms, &c.; precisely as in botany. The contrasting of plants and diseases affords ample scope to those of an ingenious turn. Thus, the accidental tissues or parasites may be said to bear a certain similarity to plants; after them, the exanthemata, and process of inflammation. But, when such comparisons, which ought to be taken only in a figurative sense, are made subservient to the study and arrangement of nosology, they will prove eminently calculated to mislead. Facts are neglected, and habits of inaccurate reasoning acquired. False premises are assumed, and erroneous conclusions follow. In common speech, flowers are often employed metaphorically to denote the abstract qualities of objects; in the above system, however, they form a constituent part. Thus measles is called the inflorescence of catarrh, and scarlatina of erysipelas. Among cutaneous affections, we find the *impetigines* botanically placed according to their anatomical form. Those whereof the type is indistinctly marked, are designated *crypto-impetigines*; in others the elevations of the cutis are *impetiginous fruits*, distinguished into the pericarp and proper fruit. The form of herpes is thus described: "a common pericarp, fruit collected in groups, mostly vesicular." The tribe of *psoræ* has for its distinctive character a separate *fruit-ground*, with solitary fruit, &c.

In his chapter of concluding comparisons, Dr. Mühry observes, that his countrymen are unquestionably far advanced in the organization of schools and universities; in state and legal medicine; in the obstetric art, and in ophthalmology. He says, "The actual state of science in other lands is, in England and France, not so well known as in Germany. In this respect the French betray a harmless ignorance, the English a morbid indifference. Among either it is only the junior branches of the profession who cultivate foreign medicine. The French are more familiar with English medicine than with German, and conversely in England. The Germans are equally well acquainted with the medicine of each country. In England, the hospitals for the sick were, in the first instance, subservient to the instruction of the medical student; lectures on the institutes of medicine were subsequently superadded. In Germany, on the contrary, theoretical lectures were at first delivered in the universities, and hospitals afterwards annexed for purposes of clinical illustration." Dr. Mühry remarks, that the relative estimation of the medical faculty, like apothecaries' weight, is nearly the same in every civilized country. But our general practitioners are for the most part of a lower grade than their professional brethren in France and Germany. He contends that a French practitioner directs his attention more to the disease than the patient; an English practitioner, disregarding the case before him, reflects on some other in his past experience; while the German practitioner entertains the wholesome doctrine thus expressed by Hufeland, "generalize the disease, but individualize the patient." The French generalize the patient, the English individualize the disease.

ART. XI.

1. *Elements of the Practice of Physic, presenting a View of the present State of Special Pathology and Therapeutics.* By DAVID CRAIGIE, M.D. F.R.S.E., Physician to the Royal Infirmary, Edinburgh, &c. Vol. I.—*Edinburgh*, 1836. 8vo. pp. 952.
2. *Elements of the Practice of Medicine.* By RICHARD BRIGHT, M.D., and THOMAS ADDISON, M.D., Lecturers on the Practice of Medicine at Guy's Hospital. Part I.—*London*, 1836. 8vo. pp. 129.
3. *Elements of Medicine.* Vol. I. *On Morbid Poisons.* By ROBERT WILLIAMS, M.D., Senior Physician to St. Thomas's Hospital. —*London*, 1836. 8vo. pp. 342.

THE simultaneous appearance of the three works of which we have transcribed the titles, sufficiently demonstrates the prevalent opinions of the want of an elementary work on practical medicine; as, no doubt, all the authors must have believed that they perceived the vacuum which they purposed to supply by their respective productions. Properly speaking, indeed, the work of Dr. Williams can hardly be regarded as an elementary treatise for the use of students and junior practitioners; as the portion of it already published, at least, is much more calculated to convey the author's own and rather peculiar doctrines respecting the nature and treatment of certain diseases, than to present such general views as are calculated for the instruction and guidance of those who are studying the

principles of their profession. For this reason, we shall take another opportunity of reviewing Dr. Williams's book, as it probably will demand a more strict examination than works not professing to be original can be entitled to.

The two other works noticed above, although composed with the same view of teaching practical medicine to the uninstructed, are extremely different in their character: in most particulars, indeed, they may be regarded as the opposites of each other. And yet they are both excellent in their respective ways; and we believe that, if read together, the student would derive much more advantage than from confining his attention to either. Dr. Craigie's work is elaborate and learned, full to overflowing of matter, comprehending almost every thing, whether in the way of fact or opinion, of theory or practice, from the days of Hippocrates to the present time; while that of Drs. Bright and Addison presents the reader with a simple outline or sketch of what they consider to be the soundest views and doctrines of the schools as at present known and taught. When we say that we think the student would do well to take both for his guide in study, we mean that, by reading the Elements of Drs. Bright and Addison in the first place, he might obtain a clear conception of the principal facts both of pathology and practice which it is important to have impressed on the mind, while Dr. Craigie's Treatise would supply him with ample materials for exercising his reasoning and his judgment on every point which might appear to him doubtful or unsatisfactory in the brief statements of the other. For a mere beginner, indeed, Dr. Craigie's book is too vast and comprehensive; it would infallibly puzzle and perplex him by the number and variety of objects presented to his mind on almost every subject treated of: but to the student, when somewhat advanced, who wished to make himself master of what is known on any particular disease or class of diseases, or to the junior practitioner, who is anxious to prosecute that best of all modes of study, namely the study of diseases as they appear in nature, in conjunction with their history, pathology, and treatment, as detailed in books, it must prove of great value. It is, in fact, better calculated to serve as a work of reference than as a manual for the student. Its very comprehensiveness, complexity, and learning prevent the pictures of disease which it contains from making that strong and definite impression on the mind which works of infinitely less merit are calculated to do. Indeed, it is with such works as the *Cyclopædia and Dictionary of Practical Medicine*, that Dr. Craigie's work should be compared; it resembles the latter more particularly in its great learning, and in that misty perplexity left in the mind by its perusal, a necessary consequence of an attempt to state briefly and consecutively a vast variety of views and opinions on any particular subject. It has, alas, but few of those slight but striking sketches drawn from nature, the graphic distinctness and boldness of which bespeak their source, and which leave a greater impression on the mind of the reader than all the masses of ideas that labour and learning can pile together.

The small work of Drs. Bright and Addison is, on the other hand, truly calculated, as it is intended, for the student. It will materially aid his progress while attending the lectures of his teachers, or reflecting on the cases he has seen in the hospital; it may even form a safe and useful guide in practice to the uninquiring and routine practitioner; but it is

vastly too meager to satisfy the wants of any one who is really desirous of knowing his profession, or to be of much use in allaying or removing the doubts and difficulties which so much beset the path of the young practitioner, and probably most so the path of the best informed and most scientific.

In going over the treatment of the different forms of fever (intermittent, remittent, and continued,) treated of in this first fasciculus, we marked several passages for comment, which our limited space prevents our noticing at length. We must, however, express our opinion that the authors are too fond of the employment of active mercurials and purgatives in fever generally; and that, in those varieties, whether continued or remittent, which are complicated with morbid irritation or inflammation of the mucous membrane of the intestines, they recommend a practice often the reverse of what our experience leads us to regard as the best.

Thus, at p. 60, in treating of remittent fever attended with purging, we are told to give calomel and rhubarb, hydrargyrum cum cretâ, castor oil, chalk, opium, &c.; but leeching the abdomen or anus, often the most effectual remedy, is never mentioned. Again, in the treatment of the infantile remittent fever, (p. 69-70,) we think the practice recommended is, generally speaking, much too irritating and drastic. Calomel and purgatives seem to be regarded as the sole means of quieting the gastric and intestinal irritation; leeching is never spoken of; and the warm bath, so peculiarly soothing in such cases, is slurred over with the incidental remark, that "the little patients will often derive considerable benefit from its occasional use." We are the more surprised at this *medicina perturbatrix* in such cases, as, in the subsequent page (71), we observe some excellent cautions against adding to the irritation of the digestive organs by mercurials. We think the article on the infantile remittent fever is especially defective in not sufficiently discriminating the chronic from the acute, the incipient from the strongly marked form of the disease. The same disposition to recommend mercurials and active purging in excess is conspicuous in the treatment of continued fever. "One or two evacuations should be procured daily, and, as they are for the most part unnatural in appearance, we generally prefer a mercurial purge to any other. Three, four, or five grains of calomel, with ten or twelve of rhubarb or of jalap, answer very well; or a saline purge with manna, or compound infusion of senna, may now and then be substituted." (P. 100.) We hope we have given sufficient proof, in the present number, that we are no abettors or sectators of the Broussaian doctrine of fever; but, on the plain principles of rational pathology, confirmed by experience, we protest against this old-fashioned and empirical method of treating fever.

Dr. Craigie's volume, which comprehends the whole diseases included in the classes *Fevers*, *Cutaneous Inflammations*, and *Mucous Inflammations*, deters criticism by its very extent; although, did our limits permit, we could point out many statements and opinions which are not in accordance with our views. On the whole, however, we are disposed to admit that, in the execution of his work, he has not fallen much short of the lofty aim he had in view in composing it.

"It has been my study throughout to present such a view of special pathology and therapeutics as may be justly said to be the united result of the observation and researches of all the ablest pathologists and physicians, by whom the science of medicine has been cultivated, and by whom its art has been simplified, improved,

and rendered energetic. In the prosecution of this method, I have applied to medicine the same principles which have been long applied to the physical and physiological sciences in general, and to morals, and to law, public and particular. The facts and classes of facts recorded by different observers, I have examined, compared, and analyzed; where the results have varied, I have studied to discover the causes on which the discordance depended; where they have been proved to be erroneous, I have studied to rectify them by the result of the labours of others, or by my own experience; when they have been defective, I have by the same means endeavoured to supply what is wanting; and, from the whole, I have cautiously deduced correct and legitimate general principles; and have specified the points in which particular exceptions become requisite." (*Pref.* vii.)

As a specimen of the work, we extract the short account which he gives of a disease with which we have been all so recently familiar—*Influenza*.

"In certain seasons, however, catarrh prevails most extensively, and betrays, by the number of persons whom it attacks, a character decidedly epidemic. This variety of the disorder, which is called *influenza*, differs from the ordinary catarrh, chiefly in the greater suddenness of its attack, in the symptoms of fever and muscular languor and weakness being in general more considerable, in those of the tracheo-bronchial membrane being more severe, in the mucous membrane of the alimentary canal being often affected at the same time, and in some instances in its being associated with a decided rheumatic tendency. This variety of catarrh has been believed by many to be infectious, or capable of being propagated from one individual to another, and the disease was very generally denominated contagious catarrh (*catarrhus contagiosus*.) This opinion, however, must have been adopted on very inadequate grounds, and without sufficient attention to the manner in which epidemic catarrh appears, prevails, and declines. The following circumstances show, I conceive, that the complaint, whatever be its origin and character, is not one of contagious properties.

"1. Catarrh, when epidemic or prevailing extensively, is preceded by a peculiar train of atmospheric phenomena, and by winds in general blowing in a particular direction.

"2. Catarrh when epidemic appears very suddenly, and affects at one and the same time great numbers of individuals, sometimes thousands, in the course of a few days or weeks. In the spring of 1832 and 1833, it appeared in this manner, and affected at once great numbers of individuals, who could have had no communication, both in London and Edinburgh.

"3. Catarrh, when epidemic, passes rapidly through a community, and cases completely and entirely for that season. The catarrhal epidemics of the seasons now mentioned were completed in Edinburgh in the course of about five weeks.

"4. A system of separation of the sound from the sickly seems to be quite ineffectual in the case of *influenza*.

"While, in short, there are no reasons to believe catarrh infectious, many concur to show that it is epidemic, or dependent upon some constitution of the atmosphere and weather. The irritative cause, which produces epidemic catarrh, appears to be one which operates much more extensively than that of sporadic catarrh. While the latter acts chiefly if not exclusively on the rhino-tracheo-bronchial mucous membrane, the influence of the former is seen not only on that but in the gastro-enteric mucous membrane, and, I think, so far as I have observed, on the skin and the fibrous tissues and aponeurotic sheaths. *Influenza* is not always a tracheo-bronchial disorder. It is often one which affects the system generally, and the vascular system of all the membranes; and this I regard as the chief cause of the more intense degree of feebleness and lassitude with which it is almost invariably accompanied, and of the long tract of weakness and delicate health by which it is often followed. The tendency of epidemic catarrh is quite similar to that of sporadic catarrh. But it is in those who have already laboured under catarrh, or in whom the bronchial membrane is weakened by repeated attacks, and therefore in the aged, very liable to induce the worst and most unmanageable forms of bronchial inflammation, that named spurious or bastard peripneumony." (P. 823.)

ART. XII.

Researches on the Effects of Bloodletting in some Inflammatory Diseases, and on the Influence of Tartarized Antimony and Vesication in Pneumonitis. By P. C. A. LOUIS, Physician of the Hospital la Pitié, &c. Translated by C. G. PUTNAM, M.D.; with Preface and Appendix, by JAMES JACKSON, M.D., Physician of the Massachusetts General Hospital.—Boston (United States), 1836. 8vo. pp. 171.

WE have already given so full an account of M. Louis' enquiry into the effects of bloodletting on some inflammatory diseases (*British and Foreign Medical Review*, vol. I. p. 397,) that, so far as Dr. Putnam's share of the present work is concerned, the only duty which devolves upon us is to assure the reader that the translation is faithfully and well executed. The preface and appendix are from the pen of Dr. Jackson, of Boston, whose affecting memoir of his son we had also occasion to notice in a former number. The preface is a reprint from a former work of a short sketch of M. Louis' professional life and labours, and is a well-merited eulogium on that conscientious and philosophic physician. The appendix is principally dedicated to a comparison between the results of what may be not improperly termed M. Louis' experiments on the effect of bloodletting, and those obtained by the author in the Massachusetts General Hospital. This comparison being in many points of view interesting, some notice of it may be acceptable to the reader.

It may be not immaterial to state that Dr. Jackson's cases are taken from the registers of the hospital, which appear to be arranged on a plan in the highest degree honorable to the management of the institution; and that all the cases having been recorded previously to the publication of the work of M. Louis, and many of them previously even to that of his original memoir in the Archives Générales de Médecine, no suspicion can exist of any (unintentional) bias, which might possibly attach to observations made expressly in reference to the question. The basis of Dr. Jackson's calculations are thirty-four cases of pneumonitis, (peripneumonia,) a general view of which and of their treatment, with its results, is thrown into a tabular form very convenient for reference. From this comprehensive record he frames tables, calculated, like those of Louis, to show the relative influence of early and late bleedings on the duration of the disease. The material facts furnished by these tables are so distinctly shown by the following commentary of the author, that we feel it unnecessary to transcribe the tables themselves.

“If we take those bled for the first time on the first, second, and third days, together, it will be seen that there were sixteen cases, and that the average period of convalescence was on the $11\frac{4}{16}$, or in decimals 11.81 day. But, omitting case xiii. the result of the fifteen cases will be that convalescence occurred on an average on the $12\frac{3}{4}$, or 12.33 day. If we take those bled for the first time on the fourth day or before, as M. Louis has done, the result will be that, in the twenty-two cases, convalescence took place on an average on the $11\frac{9}{16}$, or 11.90 day. And again omitting xiii., we have as the answer the $12\frac{6}{21}$, or 12.28 day.—As opposed to the foregoing, we may take all those bled for the first time after the fourth day, and we have seven cases in which convalescence took place on an average on the $16\frac{1}{4}$, or 16.57 day. But, omitting cases ix. and xxv., we have five cases, viz. those bled on the fifth, sixth, eighth, and ninth days, in which the average day of convalescence was $13\frac{1}{2}$, or

13.20.—The whole number of those who were bled was twenty-nine; and the average day of convalescence was $13\frac{1}{20}$; or 13.03, or, omitting the three exceptionable cases, for the other twenty-six cases, it was $12\frac{1}{20}$, or 12.46 day.—There remain five cases, in which bloodletting was not employed, except only six leeches in one of them. In these the period of convalescence was on the 14 $\frac{1}{2}$, or 14.60 day.—We thus see that, so far as the few cases I have furnished go to decide the question, we have shortened the period from the commencement of pneumonitis to the period of convalescence (by bleeding on the first day,) from 14.60 to eleven days. That is, we have diminished the period by about one quarter. If it be said that other remedies were employed, the answer is, that other remedies were employed in all the cases. Next, if we take the least favorable view of the effects, we have diminished the period by about one-tenth." (P. 122-3-4.)

The author subsequently deduces from this passage the inference that the success of bloodletting in his practice is greater than that derived from the same treatment in the hands of M. Louis. We feel, however, some difficulty in reaching the same conclusions, even when allowance is made for the greater mildness of the disease in the cases where bleeding was not employed; for we find that the diminution in the duration, by early in comparison of late bleeding, of both M. Louis' groups of cases of pneumonia, was about one-seventh; whilst Dr. Jackson gains his first average of one-fourth by including a case (the xiii.) which he himself regards as doubtful, and which, if a case of pneumonia at all, was one of this disease supervening on influenza; a category somewhat different from that in which the subjects of M. Louis' observations were found, all of them cases of idiopathic inflammation of the lungs. We find evidence in this appendix, that pneumonia ingrafted on influenza runs its course in a shorter time than the idiopathic disease. Dr. Jackson's researches appear to us to furnish a confirmation of the proposition of Louis, that bloodletting has a happy effect on the progress of pneumonia; that it shortens its duration, but that this influence is much less than has commonly been believed.

It will have been observed by such of our readers as recollect the duration of this disease in M. Louis' practice, that the average period at which convalescence was attained was later by several days than in the cases treated in America. This circumstance is explained (and we believe correctly,) by Dr. Jackson, on the ground that the comfort of the patients is better provided for in the Massachusetts General Hospital than in the larger European establishments, and especially that a higher temperature is preserved in the former than in the Parisian hospitals. Our observation, we admit, has not extended to the American hospitals, but we feel no difficulty in believing that, in respect to the point to which Dr. J. has more particularly adverted, they are superior to those of Paris, which have ever appeared to us to partake largely of that chilling influence which the scarcity and dearness of fuel diffuse over the French metropolis in winter.

We were struck with one remark in this appendix, not because of its novelty, though we acknowledge that it had not before fallen under our observation, but because it accorded with a previously conceived idea of our own: it is in the commentary of the author on his eighth table. No circumstance, he says, exercised so great an influence on the period of convalescence as early admission after the attack: so that it would seem to be less material whether the patients were bled or not, than whether

they entered the hospital early or late. The remark is fully borne out by the alleged facts. Twenty entered from the first to the fourth day of the disease, and their average period of recovery was eleven days and a half, or, omitting a case already mentioned as doubtful, nearly twelve days. Twelve entered from the fifth to the sixth day, and the mean period for these was fourteen days and three quarters. Two entered on the fourteenth and one on the fifteenth day, and their average duration was twenty-five days. The being in this building or in that is, of course, not the cause of this difference. It arises from the comparative laxity of the regimen at home, and the rigid discipline and diet of the hospital. Of all our agents for the cure of inflammation, we believe that properly regulated temperature, abstinence—excepting from very mild liquids, and absolute repose, are the most powerful. Were we in our own case compelled to choose between these hygienic means and the most approved therapeutic agents, the adoption of the one necessarily excluding the other, we should select the former. We would not be understood as denying that therapeutic measures possess the power which the general experience of the profession, and the closer investigations of MM. Louis and Jackson, have ascribed to them; but simply as expressing a belief that there has been an error in the estimate of the relative value of the two classes of influences.

There are other points statistically investigated by Louis, which the author tests so far as his cases enable him to do. As to age, his results differ from those of Louis, showing that age had not a retarding influence on the period of recovery. Neither, according to the investigations of Dr. J., had sex, (a subject not examined in the original,) any effect. Vesication of the chest furnished not very decisive results; *but it might be rendered probable that it was useful*. This doubtingly affirmative form of expression, though not the opposite of Louis's sentiment, differs from it. He says that the usefulness of blisters in thoracic inflammation is neither strictly demonstrated, nor even probable. The experience of Dr. J. regarding the effect of venesection on individual symptoms, accords generally with that of the original author.

The principal subsidiary remedies employed in the Massachusett's Hospital were calomel, tartarized antimony, and colchicum. The former was more frequently used in combination with one or other of the two latter than alone. The author's conclusion is, that the difference as to the period of convalescence was so trifling, that it might be regarded as immaterial whether mercurials were given, with or without colchicum or antimony, after bloodletting. In administering tartarized antimony, the method recommended by Odier of Geneva* was pursued. According to this plan, a dose of one-eighth or one-fourth of a grain is first given, and the doses are increased in arithmetical progression until nausea, vomiting, or purging is induced. As soon as any of these symptoms occurs, the dose is reduced to such a quantity as the patient can conveniently bear; or the medicine is suspended till the effect has ceased, and then recommenced in a smaller dose.

Dr. J.'s statistical scrutiny is confined to pneumonia; but he mentions the treatment which he has found most generally successful in erysipelas

* Manuel de Médecine. Paris, 1811.

of the face; a disease on which bloodletting has been found by M. Louis to have but little influence.

"I will venture to add," he says, "that the following has seemed to me the most successful treatment of the disease when seen very early; viz. first, to clear the bowels by a cathartic, and, if specially indicated, the stomach by an emetic; second, to administer the cinchona, or the excellent substitute we now have, the sulphate of quinine. These are given in as large doses as the patient will bear. From twelve to twenty-five grains of the sulphate in twenty-four hours will generally suffice. That the dose is sufficient is known by a buzzing in the ears: when this occurs, the dose may be diminished a little. Third, covering the parts much of the time with a thin linen, which is kept moistened with either diluted alcohol or a solution of acetate of lead. If this treatment is commenced on the very first appearance of the local disease, I think there is a very good chance that the disease will cease to spread, and that the diseased parts will be covered with scales on the fifth day." (P. 102-3.)

This practice coincides in principle with the constitutional treatment recommended generally for erysipelas, traumatic or idiopathic, by Mr. Travers, and other metropolitan authorities in our own country. The nature and treatment of this affection constitute one of the vexed questions of the art, and our impression is, that circumstances extrinsic to the disease, but influencing its character and tendency, have given rise to the diversity of opinion. In certain localities, particularly in large cities, where the constitution is deteriorated by impure air, sedentary pursuits, and a diet at once stimulating and sparingly nutritious, the proclivity to sinking of the vital powers and to local gangrene is great, and in such situations the invigorating plan will be found requisite. But among the rural and more robust population of certain parts of England, the condition of the patient and the influence of remedies have equally indicated a decidedly depletory and antiphlogistic management, including bloodletting; and in such only has safety been found. We know no malady to which the prudent rule of Sydenham, of planning the treatment "*perspecto genio morbi*," has a more forcible application than to erysipelas. Of the circumstances which render the invigorating method of cure expedient at Boston, we profess our ignorance. It is supposable that some climatorial influence may invest the disease with a character different from that which we have seen it wear in some parts of our own country.

We cannot take leave of Dr. J. without expressing our pleasure at observing the fidelity with which he is endeavouring to carry out the method of Louis for giving us more precise ideas respecting the value of our therapeutic agents. We avail ourselves of the opportunity thus afforded us of again expressing an opinion of the value of this method, to which the professional mind of this country at least is not sufficiently awake,—nay, so far as it is disposed to consider it at all, to which it seems adverse. The questions regarding it which we most frequently hear, are: "To what purpose this counting? Can a man do better than publish all his cases?" We think he can; because cases are scarcely, if ever, read, and because there is not the least chance of the reader being at the trouble of deducing the legitimate inferences from them. This he expects at the hands of the author; and we take leave to recommend the numerical method as well suited to aid the latter in his task.

ART. XIII.—THE FOREIGN JOURNALS. No. VI.

GERMAN JOURNALS.

12. *Hannoversche Annalen für die gesammte Heilkunde. Eine Zeitschrift. Herausgegeben von Dr. G. P. HOLSCHER, Königlichem Leibchirurgus, &c.—Hanover, 1836.*
Hanoverian Annals of the Medical Sciences. Edited by Dr. HOLSCHER, Surgeon to the King of Hanover, &c. Nos. I. II. III. IV., January, April, July, Oct. 1836.

THIS is another of those new journals which every year sees established in Germany, and which, for the most part, arise to take the place of some others that have closed their brief career. The causes stated by us in the first of this series of notices, as giving rise to such a superfluity of periodical works, necessarily limit the circulation of most of them, and consequently render short the existence of many. As all these journals, particularly on their first appearance, contain valuable communications which can only obtain a small number of readers at best, and which, on the stopping of the publication, are lost in the obscurity which attends unsuccessful undertakings, it is much to be regretted that the originators of periodical works do not lay their plans and calculate their resources with more forethought, care, and caution, so as to ensure a more permanent date, and a more deserved measure of justice for their own labours and those of their friends and supporters. We trust that our brother editor and fellow-subject, Dr. Holscher, has taken care to guard against the evils just mentioned; we can say, with truth, that his new journal, in our opinion, deserves to live; and we cordially wish, both to it and to himself, a long and a prosperous career.

The *Hannoversche Annalen* comes out quarterly, on the same days as our own journal, the four annual numbers constituting a volume of about eight hundred 8vo. pages, price four rix-dollars. It is in the Roman type, and the paper and print are pretty good. It is divided into three departments, *Original Communications*, *Critical Reviews*, and *Miscellanies*. In the numbers before us, we find several valuable memoirs by men of distinguished name in Germany, and some interesting statistical accounts of the medical institutions in the kingdom of Hanover. Among these last, we are much pleased with the general arrangements of a new hospital built within these few years in the city of Hanover, and containing about eighty beds. Judging from the engraved plans and description of this hospital given in the first number, we must say that the whole arrangement strikes us as of a superior kind. We are particularly pleased with the airiness of the whole, and the great number of small apartments for the reception of single cases.

In one article of the Third or Miscellaneous Department, the editor gives a brief summary of medical news, under the title of "Scientific and Bibliographical Intelligence;" and we are flattered by seeing in his second number so favorable a notice taken of the British and Foreign Medical Review and its editors. The appearance of our journal is regarded as a striking proof of the advances made in this country towards a more complete or more just appreciation of the medical science and medical literature of Germany; and we hope we may be allowed to par-

ticipate in the belief expressed by Dr. Holscher, that our work "will unquestionably and essentially contribute to the extension of the fruits of German industry and German learning in England."

There is a formal notice to contributors in the last page of the first number of this journal, which all editors will allow to be a very sensible one; and we are tempted to transcribe it, in the hope that some other contributors, besides those to the *Hanoverian Annals*, may now and then keep it in mind: it is as follows:

"Our contributors are most respectfully requested—

1. To send their communications in the booksellers' parcels,* (durch Buchändler-Gelegenheit,) to the publishers.

2. To write a second time in the margin, right clerkly, (recht deutlich,) all proper names and technical expressions."

This last request is really important, and, if attended to generally would save a world of trouble and mistakes. Our German brothers may verily be likened to elephants' trunks: while capable of grasping the greatest things, they disdain not the minutest.

13.—*Wochenschrift für die gesammte Heilkunde. Herausgeber, Dr. CASPER; Mitredaction, Dr. ROMBERG, Dr. V. STOSCH, Dr. THAER.—Berlin, 1836.*

Weekly Journal of Medical Science. Editor, Dr. CASPER; Assistant Editors, Drs. ROMBERG, VON STOSCH, and THAER.

THIS is one of the best of the foreign journals, and, although of small extent, contains probably as great a proportion of valuable materials, in relation to its whole contents, as any periodical medical work now published. This is partly accounted for by the great talents and respectability of the editors, particularly of the chief editor, and by the fact that all the original communications that appear in it *are paid for*, "either at the end of the year, or, if required, immediately after the articles are printed." The *Wochenschrift*, as its name implies, appears weekly, on Saturday, and consists of a single sheet in 8vo., without a cover. It is elegantly printed in the Roman type and on fine white paper, which would be reckoned good even in England. It costs annually three dollars and two-thirds of a dollar, or about ten shillings of our money; i.e. less than twopence halfpenny each number.

The *Wochenschrift* is strictly devoted to medical science, taking no notice of matters of merely temporary interest, whether in the form of medical intelligence or news, medical tittle-tattle or gossip, or medical politics. It is chiefly composed of original communications, but almost always contains one or more very brief critical notices. These seem in general very judiciously and honestly written. In a late number we are pleased to observe justice done to a small English treatise recently translated into German. Well might the reviewer exclaim, "What would the English say if one were to translate into their language a German thing of such *trivialness*?" But this is the character of the Germans: they have such an insatiable appetite for reading, that they are not always nice respecting the quality of the books put before them.

* No doubt by way of saving postage.—Eds.

14.—*Jehrbücher der In- und Ausländischen Gesammten Medecin.*Herausgegeben von C. C. SCHMIDT, M.D.—*Leipzig.**Annals of Medical Science, Domestic and Foreign.* Edited byC. C. SCHMIDT, M.D. &c.—*Leipzig, 1834—1837.*

TAKEN as a whole, this is perhaps the most comprehensive, the completest, and largest Journal extant. It commenced in January, 1834, and seems to have been since carried on with great vigour. A striking proof of this, and a feature which is to us quite new, is the fact that it has latterly *anticipated* the proper period of publication by several months. For instance, No. I. of 1837 appeared in November, 1836. This, no doubt, arises from the editors finding, like ourselves, that they have more matter on their hands than their prescribed limits can contain. The Journal is of the largest royal octavo or small folio size, even larger than the Brussels *Encyclographie*, in double columns, each Number consisting of about 140 pages, and three Numbers forming a volume. There are twelve Numbers in the year, and consequently four volumes in each annual series, (*Jahrgang.*) costing twelve Saxon dollars, or about 3*l.* English. It is in the Roman type, and the paper and print are moderately good.

The Journal is divided into six departments, as follows:—Extracts from or condensed notices of the principal papers in all the German and the best of the Foreign Medical Journals, classified under different heads; 2. Clinical Reports, original and selected, of general hospitals, lying-in institutions, and lunatic asylums; 3. Original Communications; 4. Reviews of medical works, German and foreign; 5. Miscellanies, medical Intelligence; 6. Bibliography, or catalogue of medical works published. The matter contained in the first department is most ample and varied, and the critical notices are also numerous and apparently just. The department of original communications is for the most part a blank; and indeed we think this scarcely consistent with the plan of the work. The number of collaborators announced on the cover of this Journal is surprisingly great, being upwards of 220. In the list, indeed, are included all the physicians and surgeons of any note in all the German States, though we cannot believe that one half of them are really active assistants; and indeed, when looking at the names subscribed to the different articles, (and none are anonymous,) this opinion seems justified. It may be safely said, that such a work as this could neither be produced nor supported in any country but Germany; and we can truly add, that it is worthy of the singular industry, curiosity, and enthusiasm of the fine people that inhabit that great country. We formerly recommended Kleinert's Repertorium as giving a complete view of the periodical literature of Germany: we are bound, in justice to Dr. Schmidt's work, to say that it effects this object in a manner equally complete and masterly, and, in addition, notices the periodical literature of other countries, and gives critical reviews of all the medical works of value, wheresoever published, or in whatever type or tongue.

PART SECOND.

Bibliographical Notices.

ART. I.—*A Treatise on Tetanus; being the Essay for which the Jacksonian Prize, for the year 1834, was awarded by the Royal College of Surgeons, London.* By THOMAS BLIZARD CURLING, Assistant Surgeon to the London Hospital, and Lecturer on Morbid Anatomy.—London, 1836. 8vo. pp. 236.

THIS work is the result of careful compilation, patient enquiry, and judicious reflection. It neither achieves nor aims at much originality; yet it contains some valuable additions to our knowledge of tetanus. We are not disposed to admit that the systematic accounts of this disease hitherto published are so imperfect as Mr. Curling considers them to be; more especially since the publication of Dr. Symonds's excellent article in the Cyclopædia of Practical Medicine, which we are surprised not to find referred to by him; still, as the best and most recent treatises have appeared in general collections of medicine, there was ample room for an independent work like the present.

In the description of this disease by Mr. Curling, we meet with little that may not be found elsewhere; but the author deserves credit for directing attention to the spasmodic contraction of the muscles of the glottis, which would appear to be not unfrequently the immediate cause of death. Some interesting statistical information is collected partly from the observations of M^r. Grigor, O'Beirne, Howship, Blane, and Dickinson, and partly from a table of 128 cases of traumatic tetanus, arranged by Mr. C. in such a form as to show the age and sex of the patients, the nature of the injury, the treatment, and the termination of the disease. It appears that the disease is equally fatal at every period of life, from the age of ten to forty-five; but its frequency and fatality are much greater in the male than the female sex.

"Of the 128 cases in the table, sixteen were females, being to the males in the proportion of one to eight. Of these sixteen cases, four only were fatal; whereas, out of the 112 cases of males, sixty-six, or more than one-half, died. The comparative rarity of tetanus in women, is partly accounted for by their being less exposed, both to the predisposing and to the exciting causes of the disease; and, since it is observed to occur more frequently in persons of a robust constitution and of great muscular strength, females are supposed to be less susceptible of it." (P. 29.)

The statements respecting the period of accession, and the duration of the disease, are identical or correspond with those of former writers upon the subject. The sections which treat of the causes, prognosis, and diagnosis, present nothing of sufficient interest to detain us, though they are marked by the same carefulness of statement and of inference as are the other parts of the book.

The most important chapter is that devoted to the Pathology of Tetanus. The author first describes the various morbid appearances observed in the cerebro-spinal axis, the sympathetic system, the nerves immediately connected with the seat of injury, the muscular system, the viscera, and other parts of the body; and in doing this he exhibits no lack of research. But the facts thus collected are insufficient in themselves to afford a clear theory of the disease, the morbid changes being of the most variable description; neither peculiar to tetanus, nor observable in every specimen of this affection. Taken, however, in connexion with the phenomena during life, and with our knowledge of the physiology of the nervous system, they assist (perhaps as much by their negative as their positive characters,) in the formation of an approximative estimate of the essential nature of the disease. The following are the general conclusions at which Mr. Curling has arrived upon this subject: (1.) That the disease is functional; a peculiar irritation, independent of inflammation or any structural alteration. (2.) That the seat of this irritation is the *tractus motorius* on either side. (3.) That the result of it is "the supply of a stimulus to abnormal action" to the voluntary muscles. (4.) That it is excited either by an impression propagated to the medulla from distant nerves, (most probably sentient,) or by inflammation in the brain, spinal cord, or their membranes; the inflammation having either commenced in these organs, or extended continuously from the nerves of a wounded part. (5.) That "the primary impression is confined for an indefinite time to the nerves of the part injured." (6.) That the irritation in the medulla, once excited, continues independently of the exciting cause. (7.) That "tetanic irritation often gives rise to a determination of blood to the cord and its meninges, and to the nerves proceeding from the site of the wound and to the affected muscles; the result of which, in the medulla, is an increase in the natural secretion of the arachnoid. The minute vascular injection of the cord and of the nerves, together with the serous effusion at the base of the brain and between the spinal membranes, being therefore nothing more than occasional effects of the disease, are by no means constantly present after death."

We have omitted two or three of Mr. Curling's general inferences, because we are pressed for room, and they are of less interest than those which we have mentioned.

After a review of the various plans of treatment, and of the individual remedies which have been resorted to for the relief of tetanus, the author very justly observes, that, as there are different forms of the disease, so they each require a different kind of management. He distributes his general directions under the heads of—1. Pure acute Tetanus; 2. Acute inflammatory Tetanus; 3. Chronic Tetanus. The second of these must, it is obvious, be treated upon strict antiphlogistic principles in the commencement, though it may subsequently require the application of measures similar to those adopted in the pure tetanus. The means employed in the chronic form, whether this be inflammatory or purely tetanic, differ more in degree than in kind from those demanded by the acute varieties. We shall quote what is said upon the treatment of the first form:

"*Pure Acute Tetanus.* If the disease be traumatic, and the patient is seen at the very

outset, topical means may be applicable. The medical treatment of this form mainly consists in maintaining a free action of the bowels, in allaying the spasms with the tobacco, cold affusion, or any other sedative equally effective; and in the due exhibition of tonics and stimulants. Here success, especially in cases attended with impending suffocation, chiefly depends upon the energy, perseverance, and judgment with which the necessary means are employed. No time must be lost in the trial of inactive remedies, or of such as experience has demonstrated generally to fail. From the period that the patient is first seen, he should never be left until the spasms are in a great degree relieved. If opium be tried, unless its influence be speedily produced and the muscles relaxed, it must be at once abandoned. By the use of cold affusion, or of tobacco, the spasms can generally be controlled. These remedies, therefore, must be vigorously employed, and persevered in, until the required effects are obtained. Brandy and ammonia should be at hand; and, as soon as reaction is established, and the paroxysms return, these sedative means must be again resorted to. Tobacco being more manageable, and, if employed with sufficient care, unattended with danger, is preferable to cold affusion, which might only be used when the other remedy is unattainable."

The last chapter is occupied with Tetanus Nascentium; and the volume concludes with (as far as it goes,) a well-selected Bibliography. Upon the whole, we do not hesitate to say that Mr. Curling's work is likely to be very acceptable to the profession, and that, in our judgment, it reflects credit upon the Jacksonian institution, which called it forth.

ART. II.—*Supplemente zur Lehre vom Kreislaufe. II. Heft. Flimmerbewegungen, Leben der Blutsphären, Monadenlehre.* Von Dr. A. F. I. C. MAYER, Ord. öff. Professor der Anatomie und Physiologie zu Bonn, &c.—Bonn, 1836. 4to. pp. 55.

Supplement to the Doctrine of the Circulation. Second Part. Ciliary Motions, Life of Blood-globules, Doctrine of Monads. By Dr. A. F. I. C. MAYER, Professor of Anatomy and Physiology at Bonn.—Bonn, 1836. 4to. pp. 55.

THE past reputation of Professor Mayer, and the services which he has, in various ways, rendered to medical science, naturally claim attention for any work that bears his name. It was therefore with sincere regret that we rose from the perusal of the pamphlet now before us, as we feel that, in discharging our duty to our readers in making them acquainted with its contents, it would be impossible not to pass a severe sentence on its author. In truth, with the exception of one single observation, which, however, is an important one, the whole memoir is nothing less than a tissue of extravagancies; and it is painful to observe that the errors of the learned writer are not casual, but are the cherished and systematic errors of a sect or school.

Dr. Mayer belongs to a class of physiologists, a pretty large one in Germany, whose zeal, and (not unfrequently) whose accuracy as observers, enable them from time to time to add materially to the stock of real knowledge, but who, as reasoners, or rather speculators, too often follow headlong wherever fancy leads them, throwing aside common sense and all such gross encumbrances as might stay them within the vulgar sphere of rational philosophy. The works of such men present a curious combination. On the one hand, we see evidence of actual observation, often to a great extent, displaying great labour, and often

much ingenuity; on the other, we see these observations wrongly interpreted, the most obvious circumstances overlooked, and facts in general exaggerated, pared down, or distorted in favour of some wild and extravagant speculation, to which every thing is sacrificed. The doctrine of Monads, "Monadenlehre," is Dr. Mayer's idol; and assuredly he worships and serves it like a faithful high priest. An uninitiated, or rather unsophisticated English reader, on perusing Dr. M.'s production, would conclude either that it was intended as an amusing piece of ridicule, or that, if serious, the author was nothing but a wild enthusiast. But Dr. M. is serious, and nevertheless he is something better than a mere enthusiast; for it would be unjust to deny that on this, as well as on other occasions, he has contributed original and not altogether unimportant observations. To speak more particularly, however, of the contents of the paper:

Dr. M. has discovered the vibratory, or, as we would call it, ciliary motion on the pericardium, pleura, and peritoneum of the frog. This observation we find to be perfectly correct. He states, moreover, that the phenomenon is confined to small patches on the surface, placed at some distance from each other; but on this point we are disposed to differ from him; for, although there are some parts of the peritoneum on which we could not perceive it, and on which it may perhaps not exist, yet there are large regions on which the motion is seen over the entire space without interruption; and we have not been able to see the insular arrangement which he describes. The phenomenon had not been previously seen on serous membranes, unless we consider as such the so named peritoneum, or membrane lining the visceral cavity of echinodermata and annelida, on which it had been observed by Professor Sharpey.

Dr. Mayer next endeavours to prove that the motion is not produced by cilia. He denies the existence of any such organs in the majority of instances, and particularly on the serous surfaces, ascribing the appearances taken by others for cilia to optical illusion, and attempting to establish his own opinion by means of several very palpable *non sequiturs*. Assuming that he has, in these cases, proved the absence of cilia, he next deals with those instances in which he cannot deny their existence. Here he endeavours to show that the cilia are not the agents, but are moved accidentally and passively. In this attempt he confounds the cilia with villi, and tells us gravely that, as villi may be seen on membranes where the motion in question never shows itself, they are not essential when they happen to coexist with it. From the gross mistake of confounding two things so different, we may know what weight to concede to the arguments founded on it; from this, also, any one who is familiar with the appearance of the cilia, as seen in several different animals, will be able to appreciate the extent and accuracy of Dr. M.'s observations: indeed, we are satisfied from this that he has not studied the phenomena extensively among the invertebrate tribes. But, not venturing to discard the very obvious agency of cilia in the Vorticellæ and Infusoria, he declares that the phenomena occasioned by the cilia in these animals are quite of a different character from that of which he is treating. On this last point we may remark, that undoubtedly, when the cilia are very minute, they can with difficulty be perceived as separate filaments, especially while in rapid motion; but, even admitting

that this difficulty amounted in some cases to an impossibility, yet the character of the motion which these organs collectively exhibit is precisely the same as in those instances in which they are large and easily recognized individually; and it is easy to trace the intermediate gradations which connect the two extremes, and show that in both the phenomena are essentially of the same kind. As regards serous membranes, on which Dr. Mayer positively and confidently denies the existence of cilia, we must say that we find no difficulty in detecting these organs, though they are very minute, on the serous membranes of the frog; and we know that Dr. Sharpey had previously seen them on the corresponding membranes of some of the Invertebrata. As to the share of the cilia in the motion, we refer to the arguments advanced by the gentleman just named, in an excellent article in the Cyclopædia of Anatomy, (Article *Cilia*, Part II. sect. 10 and 11.)

Having, as he supposes, got rid of the cilia, Dr. Mayer next reveals to us his own views as to the nature of the motion. He begins by announcing a most important discovery of his own, which he wonders never occurred to anybody else; viz. that when the mucous secretion is scraped off from the membranes in question, the masses of mucus exhibit the vibratory motion. Now, every one engaged in such enquiries has seen the appearance to which he alludes, but has been contented to explain it by supposing that some fragments of the membrane, bearing a few cilia, had been detached by the scraping, and, continuing their motion, had imparted the same to the masses of mucus in which they were entangled. Not so Dr. Mayer. From this fact and some other equally weighty considerations, he concludes that the vibratory motion is produced by a peculiar substance, named by him "vibratory matter," (*zitterstoff*;) which adheres to the surfaces on which the phenomenon shows itself. He conceives this substance to pervade the whole animal body, to be "the source of vital formation,"—"the fountain from which life flows,"—"itself the product of life, but yet the primitive or original formative substance, and therefore again productive." While it forms part of the tissues of the body, its energies are fettered, its independent living powers controlled; but on the surface of the organs it exercises its own innate powers, manifesting them by its vibrations, and still more so when it is separated altogether from the tissues; for then it forms new and independent living existences. This mysterious substance consists of innumerable little globular *monads*, dwelling in a clear slimy matter, forming, according to the author's comparison, a kind of galaxy. The monads are not idle; they continually whirl round their somewhat elongated axis, like spinning tops, and give rise to the apparent vibration. Dr. Mayer finds that they grow bigger while thus employed, and seriously tells us that, when first observed, they are about the ten-thousandth of a line in size, but afterwards grow to a five-thousandth; he does not say when this growth stops or when it begins. The monads, however, do not always keep spinning thus; they detach themselves, and then become independent infusoria, able to shift for themselves in the world. The blood-globules are infusoria, originally monads, we presume, but now elevated to the dignity of "Biospheres." These biospheres have a great deal to do with the vibratory matter; in short, they feed on it,

devouring the unlucky fry of monads; and Dr. Mayer's description of a biosphere taking a repast is very entertaining. He tells us that, on folding a piece of membrane, he has seen neighbouring blood-globules approach the vibrating edge, and leave it again; and thus far, indeed, things have been seen by many others; but Dr. M. perceives that the biosphere plunges among the crowd of monads, like a wolf among a flock of sheep, and swallows a few; and he finds that a biosphere, after thus regaling itself, becomes larger, and the monads may be seen in its inside! Like his predecessors, who support the theory of larger animals being an aggregation of monads, Dr. Mayer is also of opinion that such larger animals are really formed at first by the union of a parcel of monads; but he enjoys the great advantage of having often witnessed the process of formation going on under his own eyes. What simple men like ourselves regard as detached shreds of membrane, or of membrane and mucus, moved about by cilia, Dr. M. finds out to be new animals in the act of being formed by the aggregation of a pinch of monads, or, what is the same thing, by a portion of "zitterstoff;" but, as he seems doubtful whether such a new creature is likely to subside into the form of any existing species, he names it "Unthier," or "Monster." After telling wonderful tales about this Promethean production, which he can make at will, and about the biospheres and their ogre-like propensities, he concludes his nursery-tale by informing us, with the greatest self-complacency, that the secret of animal formation is now revealed; and, of course, that the *Monadenlehre*, combined with his own discovery of the *Zitterstoff*, will serve as a sort of talisman, before which every hidden thing in the living economy will be laid open.

Such is a specimen of Professor Mayer's physiological doctrines promulgated in the present work, which, in justice to the rational physiology of Germany, of which no one can think higher than ourselves, we have felt it our duty to expose. Although such doctrines are justly appreciated by some of the author's more philosophic countrymen, yet similar—and even, if possible, greater—absurdities are by no means peculiar to him, but are shared by many individuals distinguished by their past labours and by their talents. We are the more anxious to characterize them as we have done, because we think there is a tendency, among certain enquirers at present, in our own country, to countenance visionary speculations in science, without regard to those laws of legitimate induction, for which our best English writers have now for so many years been happily distinguished. There are some men who cannot cross the street without meeting with an adventure or seeing a wonder; others, again, contrive to pass through life without encountering anything very marvellous. Dr. Mayer is evidently one of the former class. The phenomena presented by the cilia are curious enough in themselves, as seen by plain observers; and there was no necessity to invent a fairy-tale in order to excite our interest.

For a complete account of all that is yet known on the subject of ciliary motions, we refer our readers to the elaborate article, in the first volume of the "Cyclopædia of Anatomy and Physiology," already referred to. The only addition of importance to the information contained in that paper that has come to our notice, is the discovery, by

Purkinje and Valentin, of the motions on the lining membrane of the ventricles of the brain, which, together with some observations of Siebold, are noticed in another part of the present Number. (See Foreign Selections.)

ART. III.—*The Fallacy of the Art of Physic as at present taught in the Schools, with the Development of new and important Principles of Practice.* By SAMUEL DICKSON, M.D.—Edinburgh, 1836. 8vo. pp. 180.

A THINLY printed octavo volume, in sixty-six pages of which “the fallacy of the art of physic as at present taught in the schools” was to be demonstrated, we were at first disposed to regard as the offspring of some innocent humorist; but we were disappointed in finding little but ignorance of the science of medicine, as well as of its collateral branches, infinite conceit, and proportionate emptiness. The book is a complete demonstration of the effects arising from a want of knowledge of principles, either of reasoning or medicine. “Fever, remittent or intermittent, comprehends every shape or shade which disorder can assume.” (P. 2.) This is the new doctrine, of the truth of which Dr. Dickson is thoroughly convinced, and the triumph of which he foresees. “Disease,” says our author, “is simply increase or diminution of the proper functions of health.” The admission of the correctness of this definition would be an important step gained by Dr. Dickson, in the establishment of his new doctrine. As it is a mere assertion of his opinion, we meet it simply with a contrary assertion. If, when its author has attempted to prove its universality by including within it cases of *perverted* nutrition; if, when he has paid due attention to the large class of what are termed organic diseases, with which the internal evidence of his book shows him to be unacquainted, he still retains the same opinion, we may then consider his definition worthy of consideration.

Without any attempt to prove that the distinction of fevers into symptomatic and idiopathic is not grounded in truth, and without any allusion to the phenomena by which these are supposed to be distinguished, Dr. Dickson says, that “structural lesion, so frequently but erroneously associated with disease as a cause, is not even necessary to the production of disorder.” (P. 6.) Thus dogmatically is the question decided. We read of the pride of knowledge, but we have rarely seen so well demonstrated on how small a foundation of the latter the former may be maintained.

Dr. Dickson proceeds next to the “causes of disease.” He tells us that “they are *infinite*; they affect the body principally from without, acting upon it, in the first place, through the different modifications of nervous perception, and seldom, if ever, originating in any one organ of the body; for, before a vital part can be materially implicated, all must be more or less involved. Such, however, is not the doctrine of the schools.” (P. 6.) In this conclusion we cordially agree, being quite ignorant of the school in which are taught the different modifications of nervous perception through which the causes of disease affect the body. The mere assertion which constitutes the remainder of the foregoing

sentence, and which is involved in the question to which we have previously alluded, we treat as we should the assertion that Dr. Dickson had acquired any knowledge in "the schools:" we regard it as valueless, in default of any evidence.

The next step in Dr. Dickson's inductive process is the "nature of disease." The following sentence is the basis of the new doctrine: "The phenomena of organized existence, like the chemical combinations of unorganized matter, *can only take place by means of change of temperature.* By moderate alternations of this, every action and appetite of animal life is regulated in health. Through its excessive increase or diminution alone can disease be produced: in either case, it is alternate or remittent." This is the proposed substitute for the theory of medicine as at present taught in the schools.

Probably, the simplest method of explaining to our author the fallacy of his proposition will be to state it, consistently with fact, and to append to it his own deduction. Chemical action is influenced by change of temperature; vital actions are also influenced by such changes; but both the chemical and vital actions give rise to changes of temperature; therefore (such is Dr. Dickson's *sequitur*;) the phenomena of organized existence, like the chemical combinations of unorganized matter, *can only take place by means of change of temperature.* Without admitting the identity of chemical and vital action, we give our author the full benefit of the admission. A simple illustration may render him more conscious of his mistake. Sulphuric acid and water, when mixed together at the ordinary temperature, give rise to the development of previously latent caloric; brisk exercise causes warmth of the body. Heat the water, or let the individual exercise himself in a very elevated temperature, and the chemical and vital actions are attended with a greater development of heat: therefore, Dr. D. would say, chemical and vital actions can only take place by means of change of temperature. But the application of this discovery, both to health and disease, is of the utmost importance; and, first, to health. "By moderate alternations of this, (i.e. temperature,) every action and appetite of animal life is regulated;" e.g. the desire and the act of writing his most curious work are solely ascribable to change of temperature. The application of the principle to disease is above stated: "Through its excessive increase or diminution alone can disease be produced." This sentence contains its own refutation. Where is the *excessive* increase or diminution of temperature in the majority of diseases? But we will give our author the word, as well as the advantage derivable from his own illustrations; remembering that his argument is as follows:—All diseases are caused by alternate or remittent variations of temperature; therefore, all diseases are remittent or intermittent fevers. Had he spoken of these variations as the mere accompaniments of some diseases, we should not very much have differed from him. As his doctrine is applicable to *all* diseases without exception, he will allow us to select from his illustrations those which we think the most appropriate. He asks, triumphantly anticipating an affirmative reply, "Is the gout a remittent fever simply?" (p. 19;) and then quotes Sydenham's description of it, where pain is said to be the first symptom, and not a word is said of change of temperature until the severity of "the first attack has continued twenty-four hours," when

the patient "begins to perspire." In his anxiety to prove the remissions in gout, which we willingly accord, he has unfortunately overlooked the fever. The next illustration we quote entire, as a favorable specimen of the author's style, and of the general character of his evidence.

"Is the stone remittent? Assuredly there are times of the day when the subject of it is better and worse, and this without reference to the period of micturition. Public rewards have from time to time been given for secret remedies in this disease. These remedies by their influence over fever, *without which stone cannot be produced*, have simply given the bladder the power of retaining the stone with less uneasiness. I have shewn that rheumatism and gout are remittent diseases. Calcareous deposition takes place in the course of these, and writers have accordingly marked their analogy to stone. Calculary depositions may take place in any structure of the body. Salivary calculi are common; pulmonary calculi I have seen. The liver, gall bladder, and kidneys are often the seat of stone. Occurring in the course of an artery, we term it ossification. The false cartilages found in joints are a mere variation, and the subjects of *all* are the subjects of *remittent fever*." (P. 20, 21.)

Here, dogmatism and ignorance seem to be striving for the preeminence, and we know not to which to accord it.

We need not pay any particular attention to the "mode of cure," which forms the next department of Dr. Dickson's work. Those, however, who are satisfied with his theoretical views, will be gratified to hear that he "knows not a form of disease in which he has not found quinine useful; not one where not only has it failed to accomplish his intentions, but where it has actually aggravated the existing symptoms. From mercury, iron, silver, arsenic, and a host of other remedies, he has obtained similar results." (P. 25.) By quinine he "has, often succeeded in the cure of consumption," (41.) But prussic acid and nitrate of silver are, in our author's hands, like the "universal medicine." The diseases in which he has successfully employed them, we will quote in Dr. D.'s own words:

"When discreetly administered, I know no two remedies so universally applicable to the treatment of diseases. With one or other I have successfully encountered tremor of every species, comprehending stutter, stagger, cardial palpitation and remission. I know no remedy equal to them in spasm of whatever name or nature, from asthma and urethral stricture to epilepsy. I have experienced their value in every variety of morbid sensation, from mental exaltation and depression to mania, and I have with both completely cured every kind of palsy, from simple strabismus to loss of speech and locomotion. In hæmorrhages, catarrhs, and other discharges, prussic acid is unrivalled by any other article of the *materia medica*. Cough, pulmonary congestion, and every kind of varicose fulness, with pectoral, gastric, lateral, and abdominal pains, will generally yield to one or the other. Consumption I have cured by both. From every kind of fainting-fit, and every change of structure and secretion, including flatulence, they are useful beyond any other remedy with which I am acquainted. To sum up all, they can cause and cure *fever*." (P. 42.)

The only scholastic source with which we are acquainted, whence the foregoing paragraph can have derived its peculiar character, is, certain advertisements of certain pseudo-medical adventurers, which regularly appear in weekly newspapers. Need we a stronger proof of the value of pathology than the foregoing folly? of the utility of "that bauble of Laennec, the stethoscope," (p. 16,) than the laconically stated cures of consumption? or of the advantages of common sense, than the want of it which is here manifested?

The remainder of Dr. Dickson's book is devoted to the consideration of several diseases, all of course illustrative of the previous theory. Our

reasons for not noticing them are that the theory is a flimsy illusion; that what is already known it is needless to repeat; and that our confidence in Dr. Dickson's judgment is so small, that it would be worse than useless to notice the rest.

The claim to novelty which our author puts forth in the early part of his volume, it would be injustice not to accord. The work is one quite *sui generis*, written by an individual to whom the art of reasoning is an impenetrable secret; to prove the incorrectness of a science with the principles and details of which he is evidently unacquainted. A book of this kind requires the most unqualified condemnation: we should otherwise have left it to its merited oblivion.

ART. IV.—*Thoughts on Physical Education, and the true Method of Improving the Condition of Man*. By CHARLES CALDWELL, M.D., Professor of the Institutes of Medicine and Clinical Practice in Transylvania University. *With Notes*, by ROBERT COX; and a *recommendatory Preface*, by GEORGE COMBE.—Edinburgh, 1836. 12mo. pp. 190.

THIS, like some other treatises we have had the pleasure of reading from the pen of Dr. Caldwell, is characterized by originality of thought and expression; it strikes at the root of existing prejudices, and is replete with truths which, if universally diffused and acted upon, would, without doubt, consummate the author's wishes. For its style, the logical accuracy pervading it, but much more for the immense mass of information connected with the leading principles of physical education, it is well worthy a place by the side of the popular writings of Dr. Combe.

The following passage shows in how comprehensive a sense the subject of his treatise is regarded by the author:

"By education in the abstract, I mean a *scheme of action or training, by which any form of living matter may be improved, and, by perseverance, reared to the highest perfection of which it is susceptible*. I say 'any form;' because the lower orders of living beings, vegetables not excepted, may be educated and improved, as certainly as the higher, and on the same grounds. That it may produce the desired effect, the scheme pursued must conform to the constitution of the race of beings for whose improvement it is intended; and, in the present instance, that race is our own." (P. 6.)

Dr. Caldwell answers in a very triumphant manner that class of philosophers who assert that education can, and does, improve the abstract mind, but that no corresponding change or amendment takes place in the instruments with which it works.

"The organized system of man," says the author, "constitutes the machinery with which alone his mind operates during their connexion as soul and body. Improve the apparatus, then, and you facilitate and improve the work which the mind performs with it, precisely as you facilitate steam operation, and enhance its product, by improving the machinery with which it is executed. In one case steam, and in the other spirit, continue unchanged; and each works and produces with a degree of perfection corresponding to that of the instruments it employs." (P. 7.)

When we speak of the superiority of any particular sense, as vision, this superiority is universally referred to an improved condition of the apparatus by which the eye is enabled to perform its functions. The

effect produced does not depend upon an alteration in abstract mind, but upon some important amendment in organized matter. Such being the fact as regards the external senses, the author asks for the same admission respecting the higher mental operations.

"In performing them, the mind works with the brain as its machinery, as certainly as it does with the eye in seeing, or the muscles in dancing and swordmanship. Is any form of memory—say the memory of words, or that of places—rendered more apt and retentive by judicious exercise? We have no reason to believe that the mind or spirit is amended in this instance, any more than in those heretofore enumerated. It is a portion of the brain, the organ of language or locality, that is amended. By practice, man becomes more powerful and adroit in reasoning and judging. Here, again, the mind is not changed. The belief to that effect has no shadow of evidence to sustain it. The improvement in this case, as in the preceding ones, is confined to the organs with which the mind reasons and judges." (P. 8.)

It will be perceived that Dr. Caldwell's doctrines are based on phrenology, of which he appears to be a zealous cultivator. We are far from quarrelling with these so long as they are restricted to the ascertained facts of this new science, which is certainly calculated to do more for education than all preceding systems. Dr. Caldwell justly finds fault with those writers upon education who treat technically of moral, intellectual, and physical education; and suggests that they should rather "speak correctly of the education of the different portions of the body, each portion being trained according to its organization and character."

"The skin, for example, must be educated by one mode of discipline, the stomach by another, the lungs by a third, the muscles and circulatory system by a fourth, and each external sense and cerebral organ by a method corresponding to the peculiarity of its nature. In this view of the subject, which is the only rational one, the training of the brain in all its departments, by whatever name they may be called, is as truly a *physical or physiological process* as the training of any other part of the body." (P. 13.)

Dr. Caldwell dwells on the paramount importance of directing attention to the fact, that constitutional qualities are transmitted from parents to their children, and shews the reason why children born at the different periods of matrimonial alliance differ so materially, both as regards mental and bodily power. This is a subject apparently new, or at any rate but little attended to. Common observation proves that a great difference exists in a family of children, more especially as regards mental and bodily aptitude; and this, it is supposed, must arise from the state of health of the parents at the time of its production, and much more from the degree of maturity which they have attained. Any difference in education is insufficient to account for it, because it is exhibited in a minor degree, long before this can have had much influence. Our author thus explains the fact:

"Very young parents are, in constitution, immature and comparatively feeble; and that constitutional imperfection descends to their early offspring. As years pass on, their being ripens, and their strength increases. As a natural effect of this, the constitutions of their children become ameliorated. For reasons well known to phrenologists, the animal organs and faculties predominate during early life. Parents, therefore, who marry at that period communicate in a higher degree to their first children the same unfortunate predominance, which renders them less intellectual and moral, and more sensual; less capable, as well as less ambitious of preeminence in knowledge and virtue, and more inclined to animal indulgences. If I am not mistaken,

history and observation sustain this view of the subject, and philosophy expounds it." (P. 16.)

Dr. C. very properly and forcibly insists that early marriages are materially concerned in retarding the improvement of our race, and on this subject thus expresses himself:—

"When a skilful agriculturist wishes to amend his breed of cattle, he does not employ for that purpose immature animals. On the contrary, he carefully prevents their intercourse. Experience, moreover, teaches him not to expect fruit of the best quality from immature fruit trees or vines. The product of such crudeness is always defective. In like manner, marriages between boarding-school girls and striplings in or just out of college, ought to be prohibited. In such cases, prohibition is a duty, no less to the parties themselves than to their offspring and society. Marriages of this kind are rarely productive of any thing desirable. Mischief and unhappiness of some sort are their natural fruit. Patriotism, therefore, philanthropy, and every feeling of kindness to human nature, call for their prevention." (P. 18.)

The following remarks on the injudicious method adopted by some parents and instructors of youth, of stimulating the yet immature brain of the child by studies, which ought not to be entered upon for some years, are deserving of the most serious attention; and, although they are, in some degree, a repetition of what we have already said in some of our previous Numbers, they can never be deemed superfluous:

"When the business of education shall be thoroughly understood, the brain of infants will be then no longer neglected as a mass of matter of little importance: skin, muscle, and bone being thought preferable to it. On the contrary, it will be viewed in its true character, as the ruling organ of the body, and the apparatus of the mind and its training will receive the attention it merits. I repeat,—and the repetition should be persevered in until its truth be acknowledged and reduced to practice,—that most of the evils of education under which the world has so long suffered, and is still suffering, arise from the mistaken belief that, in what is called moral and intellectual education, it is the *mind* that is exercised, and not the *brain*.

"No part is so easily or ruinously deranged by excessive action as the brain, especially the half-formed and highly susceptible brain of infants. Let this truth be realized, and faithfully and skilfully acted on, and human suffering from hydrocephalus, rickets, phrenitis, idiocy, epilepsy, madness, and other cerebral affections will be greatly diminished." (P. 39.)

If there be any one part of the system of education in which the writings of Drs. Caldwell, Combe, and Brigham will be of more peculiar and powerful service, it is in pointing out the effects produced by overstimulating the infant brain; a condition which produces, in the first place, disease of that organ, and deranges secondarily the functions of others. What is it but ignorance of the laws affecting organized matter, and the knowledge that the mind acts through its medium, which prevents parents, friends, and tutors from seeing the cause of the dreadful results which overtake their infant prodigies? The instructors themselves know full well the enfeebling and destructive tendency which an overloaded and over-excited stomach exerts upon their digestion; but, although the same law is in operation, they seem not to be aware that, by over-exciting the brain, by imposing upon it work while it is yet undeveloped, they as certainly enfeeble and destroy the mind. It is to writers on phrenology chiefly that we are indebted for calling attention to the fact that the cerebral organs might be fatigued by too much exercise, brought into a state of considerable irritation, and that inflammation might follow, and

all the dire results attending this process: that, although the injurious effect might be slow in following its cause, the foundation might be laid for various species of insanity. An aptitude for disease is thus produced in the cerebral organs, and the law of inheritance teaches us that the effect will not die with the individual subjected to the erroneous training, but that this individual's children may resemble him, and become in their turn the subjects of mental aberration.

The following remarks also particularly merit notice: we are happy to think that they have already acquired it in several well-conducted schools. The facts are certain, whatever our readers may be disposed to think of the explanation.

"By changing from one study to another successively in the same day, those who are cultivating science and letters not only learn much more than they could under confinement to a single study, but do so with less exhaustion and danger to health. Why? Because, by closely studying one branch of knowledge only,—in other words, by labouring all day with one cerebral organ,—it becomes exhausted and dull, as every industrious student must have felt. When thus worn out, therefore, by toil, not only is it unfit to exercise further with due effect, and master its task, but its health is endangered, if not for the time actually injured. It is in a fatigued condition, which borders on a diseased one, and often excites it. When, on the contrary, the pupil, feeling himself becoming unfit for one study, passes to another, he engages in the latter with a fresh and active organ and makes rapid progress in it, until, beginning to be again fatigued and dull, he changes to a third, or returns to that previously relinquished, the organ corresponding to it being reinvigorated by rest." (P. 68.)

Much interesting matter follows on the subjects of Insanity and Dyspepsia, indicating how frequently these diseases are combined in the same individual, and illustrating the important practical fact, which cannot be too strongly impressed on the minds of physicians, that cerebral irritation is one of the most frequent causes of dyspepsia.

We conclude by strongly recommending this little work to our readers, especially such as are themselves parents.

ART. V.—*Rocznik obejmujący zdanie sprawy z czynności Kliniki Chirurgicznej Uniwersytetu Jagiellon'skiego, od 1^{go} Października, 1833, do 1^{go} Lipca, 1834, roku.* Wydał LUDWIK BIERKOWSKI, Dyrektor rzeczonego Zakładu, &c. &c.

Annual Report of the Surgical Clinique of the Jagellonian University, from the 1st of October, 1833, to the 1st of July, 1834. Published by L. BIERKOWSKI, Director of the said Institution, &c. &c. *Third Year.*—Cracow, 1834. 4to. pp. 37.

THE editor of this report is, we presume, the same individual who, in the year 1827, published, in Berlin, a very able and useful work on operative surgery, consisting of a large folio volume of plates, with two thick octavo volumes of description and explanation. Such a proof of industry and professional skill as is therein exhibited would naturally contribute, in no small degree, to the attainment of the honorable situation he held at the time the Report before us was published; while the latter, as a document calculated to throw light on the state of surgical knowledge in Poland, possesses considerable interest, and proves that the unhappy

condition of that country has not prevented the extension of medical improvement to its schools: we notice it solely on this account.

The first ten pages contain regulations respecting the exercises to be performed, and qualifications obtained, by medical students of various degrees of standing. Next, after an account of the expenses and some other matters, follows a short description of some of the more important cases treated during the preceding year. The first of these is a case of congenital Fungus hæmatodes, in an infant of six years of age; and, after the extirpation of the tumour, which was between the orbits, the patient died of Encephalitis, and, on examination after death, a communication was discovered between its base and the brain. The rest are, of Elephantiasis; Atresia oris, in consequence of ulceration; Melanosis; and Epulis sarcomatosa. We have then a list of the cases, to the amount of 798, treated in the Stationary and Ambulatory Clinique, corresponding to our hospital and out-practice. Of the above number, 521 were cured, 104 were considerably relieved, 15 were not cured, 8 died, and 12 still remained under treatment. The report closes with a list of the operations performed, operator's names, &c. It is illustrated with five lithographed plates; one illustrating the case of Fungus hæmatodes; two, that of Atresia oris; and the others, cases described in a former Number.

ART. VI.—1. *Catalogue Raisonné; or, Classified Arrangement of the Books in the Library of the Medical Society of Edinburgh.*—Edinburgh, 1837. 8vo. pp. 342.

2. *An Address delivered to the Members of the Royal Medical Society (of Edinburgh,) December 16th, 1836.* By JOHN H. BENNETT, President of the Society. *Edinburgh, 1837.* 8vo. pp. 16.

WE have no hesitation in saying that the catalogue now before us is the best medical catalogue in the English language, as the library of which it is the record, is one of the best in the kingdom. The general arrangement of the classes of works is excellent, while the minute subdivision of the subjects offers every possible facility to the student desirous of following up any branch of enquiry. In this respect the catalogue must prove of the greatest advantage, not merely to the young medical reader, but to every member of the profession who can have access to the library. In minuteness of subdivision of the subjects, it is more like Ersch's *Literatur der Medicin* than any other work we have met with; and it has the inestimable advantage over this or any other *general* catalogue, that every volume indicated is extant and accessible on the shelves of the library. We strongly recommend the councils of the College of Surgeons and of the Medico-Chirurgical Society of London, to arrange their libraries on the same plan: they cannot possibly follow a better model; nor can they confer a greater boon on the profession in London than by doing so. These libraries are much more extensive than the library of the Medical Society of Edinburgh, which however contains 12000 volumes. In this last we are struck with the very small number of German and Italian works, particularly the former: of French medical literature, on the contrary, there is a large stock.

It appears from the very excellent address of Mr. Bennett, that to the under-mentioned gentlemen* the society is indebted for this valuable work; and we are sure that the following account of their labours, extracted from the same discourse, is no exaggeration of their exertions or merits:—

“None but those who have engaged in such a task can in any way appreciate the enormous labour which the formation of our Catalogue Raisonné has occasioned. It must be remembered that this is not a work that could have been performed by a mere scrivener; it evinces literary, professional, and scientific knowledge in an eminent degree; while the judicious arrangement which characterizes it throughout, stamps on it the feature of originality. Figure to yourselves the labour and toil of reviewing separately the numerous works which compose our library,—of even writing their names. Add to this the trouble of classifying them, and the necessity of perusing many, the ambiguity of whose titles was such as not to denote their nature. Reflect on these circumstances, gentlemen, and consider that all this was undertaken without the hope of reaping any of those rewards for which most men enter into literary composition,—without the satisfaction even of having their names attached to their own publication: yet was this herculean labour cheerfully performed for the good and advantage of that institution endeared to them by the remembrance of the benefits it had conferred, and at whose shrine they thus offered up the most disinterested and undoubted proofs of devotion.”

We have only one fault to find with this catalogue; and that is its title. The learned authors of it ought to have known that the epithet *Raisonné* is not strictly applicable to such a catalogue; and their taste ought to have prevented them from adopting a foreign word, when they could easily have found an English one to answer their purpose.

ART. VII.—*An Elementary System of Physiology. Complete in one Volume.* By JOHN BOSTOCK, M.D. F.R.S. &c. *Third Edition, revised and corrected throughout.*—London. Baldwin and Cradock. 1836. Pp. 887.

THE well-established character of Dr. Bostock's *Elementary System of Physiology* renders it unnecessary for us to make any extended comments upon it. Since its first publication, several other treatises on the same subject have appeared in this country, all of them of great merit, and each possessing certain peculiarities of its own. Of these works, as well as of foreign systems of physiology, and of the records of various experimenters, in essays and journals, both at home and abroad, Dr. Bostock has very extensively availed himself, in this, the third edition of his work, which is now published in one volume, instead of in three volumes. Great pains have evidently been taken by the author to present an analysis of much that is valuable which has been published since the former edition; to afford the student a reference to the best authorities on the subject of his study; and to place the work on a level with the existing state of physiological science.

The only fault we can find with the author is, that he has (as stated in his advertisement,) “in most cases preferred appending the new matter in the form of notes to interweaving it into the text;” as we do not con-

* Drs. Wood, Balfour, Maclagan, Dyer, A. Thomas, Imlach, G. Paterson, Ransford Taylor, and Mr. Seaton.

sider his reason for so doing, viz. "that those who are in possession of the former editions may be enabled more easily to distinguish the additions that have been made to the present," at all sufficient to make amends for the inconvenience attending the plan adopted. Had, indeed, the additions been published in a separate form, for the advantage of the possessors of the former editions, the case would have been different; but the facility of being able to *distinguish* the new from the old matter in a volume which they must purchase in order to do so, seems to us hardly worthy of consideration. The consequence of the plan adopted by the author is, that in some cases the notes are almost unconnected with, if not actually opposed to, the matter in the body of the work. Thus we observe, here and there, that an allusion only is made to the works of some authors, whose opinions merit careful consideration, and whose discoveries differ materially from the statements given in the text. In such cases it would have been much better if the text had been altered, especially where the alteration would have been probably nearer the truth than the original version of the author. An error may be thus propagated which might have been easily avoided by a little more trouble. This defect is, however, but rare; and, indeed, when it appears to be the object of the author to supply a bibliography of physiology, as well as an elementary system, it is perhaps hardly to be expected that he can have carefully estimated the value of all the books to which he refers: the deficiency is therefore one for which the nature of the subject, rather than the author, should probably bear the blame.

The profession, in requiring a third edition of Dr. Bostock's Elementary System, has acknowledged the merits of those editions which preceded it; merits which will be in no degree diminished by the character of the volume which is now before us. In point of extent and completeness, indeed, this work must take precedence of any other in our language: and if, when another edition is called for, as will no doubt be the case ere long, the author will adopt our suggestion of amalgamating the new matter with the old, in the text, throughout, it will be difficult to find its equal in this or any other language.

ART. VIII.—*Observations on the Medical and Surgical Agency of the Air-Pump.* By SIR JAMES MURRAY, M.D.—*Dublin, 1836. 8vo. pp. 63.*

IN a preceding article in the present number, we animadverted on the dangerous facility afforded by our numerous Societies for the publication of memoirs on subjects not sufficiently considered by the authors, and the necessity of greater strictness on the part of those intrusted with the management of the literary department of such societies. We are sorry to say that the present essay, which was originally read at the meeting of the British Association in 1835, or at least the substance of it, affords another proof of this necessity. Its object is to show that the partial removal and the increase of the pressure of the atmospheric air on various parts of the body, must be remedial agents of great utility. The rarefaction of the air surrounding the body and limbs is accomplished by means of a tin bath with an aperture for the head, around which is fitted

an air-tight cloth to surround the neck: it is furnished with an exhausting syringe, and a mercurial gauge to measure the degree of rarefaction. An apparatus has also been adapted to inclose parts of the body only, as single limbs; but no descriptions are given, the reader being referred to the instrument maker. The removal of one pound weight of pressure from every square inch is the utmost required when the whole body below the neck is subjected to the operation; when it is applied topically, two or three pounds of pressure may be withdrawn from every square inch; but there is seldom occasion to proceed to this extent. The effect produced is congestion of the cutaneous surface and perspiration; when one limb is operated on, its size is for the time considerably increased. The greater part of Sir James Murray's pamphlet is devoted to a discussion of the diseases in which it is applicable as an adjuvant to other means. These are "all simple fevers, especially at the commencement," p. 10; "the cold stage of intermittents," p. 11; "all the shades and colours of cutaneous disorders depicted by Willan and Bateman," p. 12; "inflammation of the brain, lungs, pleura, heart, stomach, liver, or any other internal organ," p. 13; "simple congestive apoplexy," p. 14; "cases of paralysis depending on surcharge of the vessels of the brain or spinal marrow, and where coma, stupor, embarrassment of speech, distorted vision, intolerance of light or sound, and loss of memory, arose from the same causes," p. 19; "in preventing tubercular cachexia," p. 21; in "active and passive congestion" of the mucous membrane of the stomach and bowels," p. 22; in those complaints called nervous which "depend on various congestions, chronic enlargements, fulness, and sometimes sub-inflammatory states of parts of the brain, spinal marrow, or their investments," p. 23; and "in certain kinds of ailments of the eye, ear, and other organs of sense, epilepsy, spasmodic affections, mania, chorea, and several of the neuralgia," p. 24; in severe burns "where sphacelation is threatened," p. 29; "in the treatment of some female complaints," p. 30; in "partial paralysis," p. 30; "in dissection wounds," p. 34; "bites of mad dogs," p. 35; "lumbar abscess when opened," p. 37; "drawing out piles," p. 37; "drawing the breasts to promote menstruation," p. 40; &c.!

That this extensive dry cupping does actually produce permanent relief in so many diseases is not so much attempted to be proved, as that, according to theory, it ought to do so. Sir J. Murray's theory appears to be, that as these diseases depend on congestion of blood in some internal organ or structure, therefore artificially drawing the blood into the cutaneous vessels, must diminish the internal congestion and relieve the disease. He makes it a purely mechanical process, and thus contrasts it with derivation produced by medicinal revulsives, as diaphoretics, frictions, blisters, &c. "This is the great line of distinction between derivation of the fluids to the surface by suction, and its propulsion by the usual medicinal revulsives; that the former method acts in making the capillaries passive conductors of increased circulation, but the latter operate by rendering the vessels more *active*, aggravating acute cases and adding to their over-excitement." (P. 17.)

If we are to agree with this theory, it will be difficult to conceive that suction can exert much influence on any permanent inflammation. There

are, however, proofs that the capillaries are not mere passive tubes in this process of rarefaction, for the part becomes red, painful, hot, and covered with perspiration, and the warmth and redness continue a considerable time after the pressure is restored. The want of permanency of this excitement seems to be the only theoretical reason against its general utility as a means of counter-irritation or derivation, and we suspect that dry cupping has gone out of fashion from the slight effect of so temporary a remedy over fixed diseases.

But it is not only, (argues Sir James,) that removal of atmospheric pressure relieves on the principle of dry cupping. When the whole body, except the head, is subjected to it, there will be an increased facility in expanding the chest, for the removal of the pressure of the atmosphere from the outside of the thorax allows the pressure within to dilate the chest more readily, and as the contractile power of the muscles proceeds without interruption in a partial vacuum, the expansion of the chest in inspiration is made easier without any hindrance to the due contraction in expiration. Hence, in all cases where "there is debility or torpor of the respiratory nerves and muscles," (p. 8,) this easier acquisition of pulmonary capacity is an important benefit.

In the absence of cases (and none are given,) it is not easy clearly to understand the particular kind of diseases indicated; for, theoretically, expiration should appear to be rendered more difficult by the removal of part of the atmospheric pressure externally. In ordinary circumstances, the external pressure of the air being equal to the internal pressure, the respective forces are balanced. But if the air is pressing into the lungs with its natural weight of 15lbs. on every square inch, and that on the external surface with only 14lbs., (1lb. being removed by the rarefying apparatus,) a greater contractile power is necessary to expel it. The muscles necessary for expiration should therefore neither be weak nor torpid.

In the observations made on compression of the air, the descriptions of the mode of effecting it are so scanty and imperfect, that it is difficult for one who has not seen the actual application of the process to understand it. Much however is promised: it is to supersede the diachylon strapping of Velpeau in burns, to "regulate graduated compression upon angular or irregular joints or surfaces, and thus arrest hemorrhage," p. 49; to supersede bandages in fractures, and render "vascular, turgid, and inflamed ulcers" less active: in hernia humoralis, it is to relieve the pain and inflammation, and it is to dissipate tumours, and push up all kinds of protrusions, and press into the skin various medicaments. When a lady is unable "to nurse," or her child is dead, compression on the mammæ is to prevent the secretion of milk; as, on the other hand, when there is a paucity of milk, by means of rarefaction, ladies "may have the supply required." (P. 39.)

If such compression will actually produce these effects and can be readily employed, it will be a valuable addition to our stock of remedies; and, as Sir James Murray describes himself as "nervously anxious" that it should be understood, and appears to be fully convinced of its value, we are sorry that he has not given his observations that form which would have tended to produce a similar conviction in the minds of his readers.

Had he given a careful history of the cases falling under his own observation, with the necessary details of the length of time the rarefaction or compression was employed, the immediate results and their ultimate effects, even although these cases might have been but few, he would have done more to accredit the practice than can possibly be accomplished by the mere expression, however loud, of his own conviction of the value of his discovery and of its being applicable to almost the whole circle of diseases. That he has not done so we regret the more, from believing that the remedy in a more limited number of diseases is likely to be beneficial. The proposal to dry-cup the breasts in amenorrhœa, in order sympathetically to promote the action of the uterus, is worth attending to. If successful, it is a proof too that the beneficial effects of suction depend on the irritation of the mammary vessels, and not merely in dilating mechanically the passive capillaries; for the fact, that by drawing a certain quantity of blood into an organ, a larger quantity is determined to a distant part, can never be explained by mechanics. The value of rarefaction where a mechanical effect only is required, as in the reduction of hernia, has lately been proved by a large number of successful cases, (vide No. II. of this Journal, p. 586,) by Dr. Koehler of Warsaw. In justice to Sir J. Murray, it should be stated, that he had suggested the remedy previously to the appearance of Dr. Koehler's paper.

ART. IX.—*The Principles of Surgery*. By JAMES SYME, F.R.S.E., Professor of Clinical Surgery in the University of Edinburgh. *Second Edition*.—Edinburgh, 1837. 8vo. pp. 460.

MR. SYME is favorably known to the profession by his Treatise on "Excision of the Joints," and his numerous communications in the Edinburgh Medical and Surgical Journal. Those who are acquainted with the Edinburgh schools of medicine are well aware of his unwearying zeal and energy in the pursuit of his profession. Previous to his present appointment of professor of clinical surgery, he established a considerable hospital at his own expense, and taught clinical surgery to one of the most numerous classes frequenting private lecture-rooms; so that, both as a practical surgeon and as a teacher, he has been long acquiring that kind of information, and training his mind to those pursuits, which are most fitted to qualify the individual for the production of an elementary work on Surgery. Lecturers are, of all others, the most proper persons to write elementary treatises, from their habits of going over, year after year, all the details of every department of the branch they profess, and of presenting them in their most simple form to those commencing the studies of their calling. Indeed, the German professors appear almost to consider it to be a part of their duty to write text-books for their pupils; and in this way many admirable works of more than local interest have originated. Many books of this kind have also originated from the Edinburgh schools, as the treatises of Liston, Alison, Christison, Hamilton, M'Intosh, Campbell, Syme, Craigie, and others, on the respective subjects which they profess, abundantly testify. The present work of Mr. Syme has reached a second edition: its first appearance was

in two volumes, with ample margins and most readable print; but Mr. Syme, after the more economical fashion of the last few years, has republished it in one closely printed volume, with smaller type, at a little more than half the price of its predecessor; although he has revised the old matter, and added much that is new. The critic's task with books of this kind is one of some difficulty, especially if his aim is practical usefulness, as well as just criticism. It is out of the question to analyze matter that should have been compressed into the smallest compass; nor will mere extracts, isolated bits, like the separate stones of a building, produce any interest, or give a very clear notion of the author's design: it is delicate to criticise omissions where much must be, of necessity, omitted, or to object to a want of originality where originality may be carried too far. Perhaps the most feasible plan is merely to give a general opinion, such as every reflective reader forms after perusing a book.

Mr. Syme's peculiar excellence appears to us to depend on his minute observation, on his power of describing clearly those appearances which have fallen under his own inspection, and on his aptness at methodical arrangement. He is less capable of clearly stating great principles and leading truths. For instance: his description and classification of ulcers is clear, intelligible, and graphic; but his chapter on inflammation gives a less decided impression of his having thought out the subject for himself, or even of his having made himself so thoroughly the master of the opinions of others as to reproduce them with that degree of originality which would prove that he had completely digested them. This criticism however applies to a very small part of the book, which we hold to be a highly useful and creditable performance; one that we should unhesitatingly recommend to young men in need of elementary works, and one from which even those who have been long practising their profession may gain serviceable information. The minor operations of surgery are described with as much minuteness as the more severe; and all are easily intelligible. The following description of excision of the joints is a fair specimen of Mr. Syme's method of compressing much into a little space, without sacrificing clearness. By those who have not seen his work, it will be read with interest.

Excision of the Joints. "Amputation has until lately been regarded as almost the only means of relief from carious joints. But it is now ascertained by experience, that the limb may be saved by cutting out the articulation. The softened, discoloured, and ulcerated integuments, the thickened and indurated cellular substance, and the gelatinous synovial membrane, are found to afford no serious obstacle to recovery, provided the whole of the bones, so far as they are actually carious, are taken away. The operation requisite for this purpose, though severe, is not more dangerous than amputation, because the joint, previous to its performance, has been opened by the disease; the whole of the articulating tissues which are apt to suffer violent inflammation when irritated are either destroyed or removed; the great blood-vessels and nerves are not interfered with, and the patient is not subjected to the shock which is caused by taking off a limb." (P. 211.)

"Shoulder-Joint. Different methods have been followed in cutting out the shoulder-joint, but it will be sufficient to describe the one which appears to be the most convenient. The patient being seated on a chair, and properly supported, the surgeon introduces a straight, sharp-pointed knife under the acromion, thrusts it down

to the head of the humerus, and then cuts perpendicularly, close upon the bone, nearly as far as the attachment of the deltoid. He next carries the knife backwards and upwards from the inferior extremity of the first incision, so as to divide the external part of the deltoid. And, having thus formed a flap, he dissects it from the subjacent parts, so as to expose the articulation. In order to detach the head of the humerus, which is of course his first object, he cuts transversely into the joint, introduces the forefinger of his left hand, and, using it as a guide for the knife, separates the attachments of the muscles, which are inserted into the greater and smaller tuberosities. The arm being then drawn across the breast, the head of the bone protrudes the wound, and, being grasped in the hand, may be readily sawn off. The glenoid cavity should next be examined, and taken away as far as seems necessary, which is easily done with the cutting pliers. The whole of the surface covered with cartilage should also be removed, and in general this will be sufficient; but sometimes the caries extends farther into the bone, and in this case must be carefully followed out by the pliers or gouge.

"The only artery cut during the operation that requires a ligature, is the posterior circumflex. The edges of the wound should be stitched together, and, some light dressing having been applied, the arm ought to be supported by a spica bandage and sling.

"The patient need not be confined to bed beyond a day or two, or so long as the fever excited by the operation continues; and, when the wound begins to heal, he must assiduously exercise the limb, to prevent it from becoming stiff.

"*Elbow-Joint.* The best mode of performing the excision of the elbow-joint is that which was originally contrived and practised by Moreau. The patient should lie with his face downwards, so as to present the posterior surface of the joint. The surgeon, using the same kind of knife which was recommended for the former operation, makes a transverse incision into the joint, close above the olecranon, and extending from the inner edge of the process to the external tuberosity of the humerus. It is necessary, in doing this, to be careful to avoid the ulnar nerve, which lies close upon the inner side of the olecranon; and the safest plan is to thrust down the knife perpendicularly into the joint, with its back directed towards the nerve. At each extremity of the transverse cut thus made, the surgeon next makes an incision about an inch and a half long, both upwards and downwards, in the long direction of the limb, so as to form two square flaps, and give the form of the wound a resemblance to the letter H. These flaps being detached from the parts below them, the olecranon may be easily removed by the saw or pliers, after which no difficulty will be experienced in cutting the lateral ligaments of the joint, protruding the extremity of the humerus, and sawing it off through the tuberosities. Lower than this would not be sufficient for removing the whole of the cartilaginous surface, and the caries very rarely extends higher up. The head of the radius may next be cut away with the pliers; and then nothing remains to be done but the separation of the portion of the sigmoid cavity of the ulna that was left after the removal of the olecranon, which may now be readily effected by the pliers. It might be thought better to take away all of the ulna that required excision at once, but the attachment of the brachii internus to the coronoid process renders this very difficult, especially if it is attempted before the free space afforded by the removal of the other bones is obtained. After the olecranon and the extremities of the humerus and radius are detached, it is easy to cut out with the pliers any more of the ulna that may be required.

"It is seldom necessary to tie any arteries; but, if a disposition to bleed should be observed when the operation is finished, the vessels ought to be sought for and secured, however small; as the hemorrhage, when allowed to continue, produces very disagreeable effects by distending the wound, separating its edges, and causing great irritation. The wound should be closed with stitches of the interrupted suture, and then a long bandage must be applied in the figure of 8 to support the limb, which should be bent at a right angle, and to prevent the ends of the bones from moving or pressing injuriously on the soft parts. Rigid cases of iron or wood have been proposed for this purpose, but they are found to be in all respects less convenient than the

means just mentioned. The patient, after the first two or three days, will find himself most comfortable in the erect posture; and, when the inflammatory tension consequent upon the operation begins to subside, he should gently but diligently exercise the limb, so as to preserve the mobility of the elbow." (P. 212.)

ART. X.—1. *Mittheilungen ueber die Cholera Epidemie zu St. Petersburg, im Sommer 1831; von Praktischen Aerzte daselbst. Unter redaktion der Herrn Doktoren LICHTENSTADT und SEIDLITZ.—St. Petersburg. 8vo. I. Band. 1831; II. Band. 1832.*

Communications respecting the Epidemic Cholera at St. Petersburg, in the Summer of 1831; by Medical Practitioners in that City. Arranged and edited by Drs. LICHTENSTEIN and SEIDLITZ.—St. Petersburg. Two Vols. 8vo. 1831, 1832. Pp. 266, 321.

2. *Rapport sur le Cholera Morbus de Moscou.* Par F. C. MARCUS, M.D., Inspecteur et Médecin en Chef de l'Hopital Galitzine, &c. &c.—*Moscou, 1832. 4to. pp. 450.*

Report on the Cholera Morbus of Moscow. By F. C. MARCUS, M.D., Chief Physician to the Hospital Galitzin, &c.—*Moscow, 1832. 4to. pp. 450.*

3. *Specimen Historico-Medicum de Cholera Asiatica itinere per Belgium Septentrionale.* Auctore A. C. G. SUERMAN.—*Trajecti ad Rhenum, 1835. 8vo. pp. 289.*

A Medico-Statistical Account of the Epidemic Cholera in Holland, during the Years 1832, 1833. By A. C. G. SUERMAN, M.D. &c.—*Utrecht, 1835. 8vo. pp. 289.*

HAVING, in two articles in our last Number, (see Review of Dr. Mackintosh and Mr. Parkin,) had occasion to notice the subject of Cholera, and to lament, in common with all rational observers, how ignorant we still remain both of its pathology and cure, we cannot put aside the works of which we have transcribed the titles, and which have just reached us from our kind friends abroad, without making one or two observations on the most important subject of which they treat. Our readers will hardly expect that we are now about to enter at any length on the subject of epidemic cholera. As, however, we have no good grounds for concluding that that dreadful malady will not visit us again, we are anxious to point out to our readers how desirable it is that they should now, when their minds are calm and comparatively uninfluenced by their feelings, their prejudices, or their theories, endeavour to make themselves acquainted with the actual phenomena of the disease; the circumstances under which it occurred in different countries; its progress and decrease; its real symptoms; the appearances on dissection; its actual and relative mortality under different modes of treatment, on a large scale. It cannot be concealed, that as yet we are utterly ignorant of any mode of preventing or curing cholera, and that the great majority of the works which have been published on this subject, in this and other countries, not only do not afford us any substantial hope of assistance in the event of a return of the disease, but are humiliating proofs of the unphilosophical way in which medicine is generally cultivated, of the fallacy of the grounds on which much of our received pathology rests, and of the lamentable imperfection of our therapeutic means.

With the view of removing some portion of these deficiencies in regard to cholera, we would earnestly recommend the perusal of works of the same class as those the titles of which we have placed at the head of this notice,—namely, of the historical and statistical kind,—which are composed principally of important facts, not of fanciful or absurd theories. We have much yet to learn of the phenomena and habitudes of cholera, before we can hope to attain a consistent pathology of it; and it is the business of rational medicine, in the present state of our knowledge, to occupy itself principally with these. It is thus we can alone hope to augment our means both of prevention and cure; and, if our hopes should still be disappointed, we shall at least feel that we have been proceeding in the only path which sound philosophy acknowledges.

The works before us are all of extraordinary merit; and we hope, on some future occasion, to lay a summary of the more important facts contained in them before our readers. We refer to them now, chiefly to point them out as among the very best that have been published on the subject. They form a striking contrast with the majority of the works on cholera which have appeared in this country. We cannot lay them aside without transferring to our pages one or two of the very important and interesting statistical facts wherewith they are enriched.

In the epidemic of Moscow, in 1831-2, the total number of patients treated for cholera was 8,609; of whom, 4,695 (that is, more than one-half,) died. The proportion of cholera patients to the whole population was about 1 in 36.

Besides observations on every subject relating to this epidemic, the treatise of Dr. Marcus contains fifty cases minutely detailed, (in Latin,) with the appearances on dissection. In the dissections, particular attention was paid to the state of the blood and the other fluids of the body, especially the bile, and urine, and the serous discharges from the bowels. An elaborate memoir on the chemical analysis of these is given by M. Hermann, from which we make the following extract:

	Proportion of Coagulum and Serum.		Specific Gravity of the Serum.
	Coagulum.	Serum.	
Blood of a young man in good health	43	57	1027
Blood of a healthy pregnant woman	44.75	55 25	1023
Blood of a girl attacked with cholera, before the watery evacuations	50	50	1027
Blood drawn from men labouring under cholera, with watery evacuations, and who recovered	a. 55 b. 60.5 c. 62.5	45 39.7 37.5	1023 1032 1028
Blood taken from a cholera patient, four hours before death	60	40	1036

In all the cases, the clot and serum evinced acid qualities on the application of tincture of litmus, except in the four last, (the individuals actually under cholera with watery discharges,) in which it showed alkaline reaction.

In Holland, the disease, out of a population of 2,427,206, attacked 19,037, in both the epidemics of 1832 and 1833. In the former year, the proportion of cases of disease to the whole population was, *in rural*

districts, 1.54 in the 1000; and, *in towns*, 8.93 in the 1000: in the latter year, the proportions were 1.08 and 7.42; giving an average, in both epidemics, of 8.17 in the 1000 for towns, and 1.31 for the country. The proportion of deaths in both epidemics was as follows:

1. Proportion of deaths to the whole population :
 In towns, . . . 4.36 to 1000 inhabitants,
 In the country, 0.68 to 1000 ditto.
2. Proportion of deaths to the whole number of cases of cholera :
 In towns, . . . 1 in 1.87,
 In the country, 1 in 1.91.

While we are writing this, we learn from a medical friend in Prussia, who had recently made a tour through Austria, Hungary, and Bohemia, that he found cholera prevailing everywhere, and everywhere, as heretofore, committing its ravages, unchecked by all the efforts of medical science.

ART. XI.—*The Works of JOHN HUNTER*, F.R.S ; *with Notes*. Edited by JAMES F. PALMER, Senior Surgeon to the St. George's and St. James's Dispensary, &c. *In four Volumes, illustrated by a Volume of Plates in Quarto*. Vol. I.—London, 1835. 8vo. pp. 643.

THIS volume has been published so recently, (although bearing, we know not why, the date of 1835, both on its title-page and its preface,) that there is left neither time enough of our trimestral period, nor space enough of our allotted pages, to do it that kind of justice which so important a work has a right to claim. Our readers must have found out, ere now, that we think articles in Reviews may have other merits beside the rapidity with which they follow the publication of the works on which they are founded; and, least of all, are we likely to fall into so open a snare in the case of such a work as that now before us. The name of John Hunter must demand from medical writers, in all succeeding times, the truest homage; and the publication of the first edition of his collected works is an event calculated to arrest the attention of every one who is capable of appreciating true excellence in science. Although we shall, therefore, take more ample time to review the personal character, the discoveries, and general merits of this great man, we cannot allow the present opportunity to pass without recommending this edition of his works to the earnest attention of our readers. It is a book which ought to be in the library of every medical man. We consider the profession under great obligations to Mr. Palmer for having at length removed from the literature of this country the reproach of having no collection of the writings of an author who was unquestionably, to use the words of Mr. Lawrence, "the greatest man whom this country has produced in medical science, without excepting even the immortal discoverer of the circulation; perhaps the greatest man, in the combined characters of physiologist and surgeon, that the whole annals of medicine can furnish."

The present volume contains the Life of the Author, compiled from original sources, and embracing an account of the Hunterian Museum, by Drewry Ottley; and Surgical Lectures, delivered in the year 1786

and 1787, and collated with several manuscript copies, with Notes, by the Editor. The subsequent volumes are announced to follow speedily, and their contents will be arranged as follows:—Vol. II. *Treatise on the Natural History and Diseases of the Teeth*, with Notes, by Thomas Bell, F.R.S. F.L.S. F.G.S., Lecturer on the Teeth and on Comparative Anatomy at Guy's Hospital. *Treatise on the Venereal Disease*, with Notes, by G. G. Babington, Surgeon to St. George's Hospital, and formerly Surgeon to the Lock Hospital.—Vol. III. *Treatise on the Blood, Inflammation, and Gun-shot Wounds*. Miscellaneous Practical Papers, collected from different Transactions, with Notes, by the Editor.—Vol. IV. *Observations on certain Parts of the Animal Economy*. Croonian Lectures on Muscular Motion, delivered before the Royal Society in the years 1776—1782. Miscellaneous Papers on Physiology, Zoology, and Comparative Anatomy, extracted from the Philosophical Transactions and other Works, with Notes, by Richard Owen, F.R.S. F.L.S., and Hunterian Professor to the Royal College of Surgeons in London.

ART. XII.—*Traité de la Consomption Pulmonaire, &c.* Par JAMES CLARK, M.D. *Traduit de l'Anglais*, par HENRI LEBEAU, Médecin en chef de l'Hôpital Militaire de Bruxelles.—*Bruxelles*, 1836. 8vo. pp. 388.

A Treatise on Pulmonary Consumption, &c. By JAMES CLARK, M.D. &c.—*Brussels*, 1836.

THE above translation having come into our hands with other books from the Brussels press, we were curious to know how the translator had succeeded in rendering into his own language one of the most valuable of our practical works, and which we knew to be written in the accurate and chaste style which befits a scientific treatise. We are well aware how difficult it is to preserve, in a foreign idiom, the graces of style of the original language, and we are therefore content to forego this, which, after all, is a mere ornament, in translations; but we think it positively culpable in any one who is not sufficiently master of the language in which any work is written,—more particularly a scientific work,—to undertake a translation of it; because, in his hands, not merely the author's graces and niceties of diction disappear, but his opinions may be misrepresented, his statements altered, and his very facts falsified. And we are sorry to say, that all this has befallen Dr. Clark in the hands of Dr. Lebeau. It is evident that this gentleman has an imperfect knowledge of the English language; and indeed he seems, throughout his task, to have troubled himself very little with giving an adequate, or even an accurate, interpretation of the original. To say nothing of inaccuracies of slighter moment, which are numberless, the translator has in many cases quite misconceived his author's meaning; and in still more he has carelessly and loosely rendered passages in such a manner as to convey meanings considerably different from the author's. For instance: he makes him affirm and state many things as *positive* which, in the original, were given as merely *probable*, or perhaps as a mere *opinion*: whole lines are occasionally omitted; sentences, and even paragraphs, are formed, where none existed in the original, &c. &c.

We could substantiate these charges by examples from almost every page of Dr. Lebeau's volume; but, as this would not greatly interest our readers, we shall content ourselves with these general remarks, trusting that, should they reach the eye of the translator, he will, in preparing a new edition, (which, from the great merits of the treatise, it is likely soon to reach,) take care to remove blemishes which are no less injurious to his own reputation than to that of the original author. And we take this occasion of recommending to Dr. L., what we would earnestly recommend to all translators,—and certainly to our English translators, as much as to others,—viz. to submit his work to the examination of some literary friend, who is tolerably well acquainted with the language of the translation, but whose mother-tongue is the language of the original. By this means,—and we believe we may say by this means alone,—can foreign versions of scientific works be obtained, which can do justice to all parties. Had this canon been followed during the last few years in England, we should have been spared the necessity of animadverting, in terms of some severity, on several medical translations which have passed through our hands, since we commenced our labours in this Journal.

We are so persuaded of the intimate connexion between clear expression and clear thinking, and so conscious of the deficiency in literary skill of many who publish medical books, that we are determined to persevere in criticising the manner as well as the matter of the works that come before us. This observation applies with double force to *translations*; and we therefore give our young and industrious friends, who may be engaged in the very meritorious task of translating, this fair warning, that we will judge them rigidly when they come before us. That they may not, however, expect to find in us judges prejudiced against undertakings of this sort, we wish to say distinctly how much we approve of them, and shall lose no fair opportunity of promoting them: and, indeed, how much better would it be for their own reputation and for their profession, if many of our own young men, just entering on practice, would employ their leisure hours in translating some of the classic works of our continental brethren, instead of heaping up materials of future regret for themselves in the shape of new treatises; original, indeed, in form, but too often consisting of crude facts unsifted by experience, wild and illogical theories, or mere compilations of the matter without the spirit of books already well known and in everybody's hands? We take some credit to ourselves for having suggested tasks of this kind to some of our junior brethren; and we doubt not that they will hereafter have good reason for congratulating themselves that the medical literature of this country is indebted to them for some of its most valuable stores. The translations and translators of WALTHER and MÜLLER, and KRAMER and BOUILLAUD, will be remembered by British physicians and surgeons and physiologists, long after the majority of the "original works" of the present day are forgotten.

And here we cannot deny ourselves the pleasure of remarking, that we have been much gratified, in the prosecution of our labours concerning our own journal, to find how wide-spread is the knowledge of the chief continental languages among the junior members of the higher branches of the profession in this country. German, Italian, and French may be said

to be now regarded as essential to the education of a physician. We are, at least, sure that we speak within bounds when we say that, for one member of the profession that was acquainted with these languages (more particularly the two first named) thirty years ago, there are now fifty. Other languages also we find are studied to an extent beyond what we had previously believed; for instance, Spanish and Portuguese, Dutch and Danish; and, as our readers will see by a notice in the present Number, even the tongues of the Slavonian stem, Polish and Russian. It is needless to remark how beneficial an influence such an extended knowledge of the literature of medicine must eventually exert over its practice. It is at once a proof and a consequence of the great and general progress of medical science; but it is also, in a considerable degree, attributable to the general peace which has now so long and so happily prevailed, and which is daily uniting more and more closely into one brotherhood all the members of our common profession throughout the world. It will continue to be our pleasure and our pride to contribute, in any degree, to this most desirable result.

ART. XIII.—*Illustrations of the Comparative Anatomy of the Nervous System.* By JOSEPH SWAN. Part II.—London, 1836. 4to. pp. 24.

THE second part of this valuable work is no less creditable than the first to the author and to his country, and fully supports the very high character which Mr. Swan holds as an anatomist of the Nervous System. In our former notice of this work, we felt it our duty to make a few strictures upon that portion of it which illustrates the anatomy of invertebrated animals, and to question the correctness of some of Mr. Swan's opinions respecting the analogies of the structures he was then describing, as not being in accordance with the received opinions and established facts in comparative anatomy. On the present occasion, we are happy to find less cause for criticism.

The Part which is now before us commences with a splendidly executed plate of the brain of the cod, (*Gadus morrhua*,) which forms a continuation of the anatomy of fishes from the preceding Number. Some very interesting distributions and connexions of nerves are shown in this dissection; as the connexion between the vagus and posterior branch of the fifth nerve by a branch from the former; the distribution of the third nerve, which gives branches to all the muscles of the eye, except the superior oblique and abductor, and sends ciliary branches to the interior of the organ; and the distribution of branches from the anterior branch of the fifth to the interior of the nasal orifices. These are interesting communications of nerves, but the origins of the nerves themselves are still more so. Thus, with the exception of the olfactory, optic, and sympathetic nerves, all the nerves of special and organic functions,—as the fourth, fifth, auditory, and vagus,—originate from the track of the restiform body; while the true motor nerves, the third and sixth, always arise from that of the pyramidal body, precisely analogous to similar nerves in the human body. In the ninth plate, the second of this part, there is a beautiful delineation of the sympathetic nerve and of the gastric branch of the vagus in the skate, (*Raia batis*.) The distinguishing anatomical characters of these two nerves are well shown: the vagus

nerve is entirely without ganglia, and distributed over the sides of the stomach; while the sympathetic, which is given to the whole interior of the body, is largely supplied with them. This exposition of the sympathetic nerve is the more interesting from the circumstance that, until within these few years, the existence of a sympathetic nerve in fishes was doubted; and from the remark of Professor Müller, that ganglia are absent in the sympathetic system of most fishes; that they are not essential to constitute the sympathetic system. The description which Mr. Swan gives of the sympathetic nerves of the skate is so distinct, that we shall quote it in his own words:

"On each side of the superior part of the abdomen, at a short distance from the spine, the sympathetic nerve forms an unequal oblong ganglion, of a reddish-ash colour; it gives off both very large and very small nerves, having this appearance, to pass on the mesentery, communicate with branches of the par vagum, and accompany the mesenteric arteries to the viscera. Some filaments are distributed about the testicles, and others pass towards the aorta; but these are too soft to be satisfactorily traced to their precise terminations.

"The large ganglion communicates by a semi-transparent tissue with a small one; this with the next, and so on to some distance down the spine; it communicates by the same tissue with the par vagum, and the large nerves collected from the spinal cord, which resemble the axillary plexus of the higher classes. It may be a question whether this semitransparent tissue be nervous; but, as it connects small ganglia with each other and with the large one, but little doubt can be entertained respecting its true character, notwithstanding the nerves proceeding from the large ganglion to the viscera have a different appearance.

"The sympathetic nerve of this creature must be formed almost entirely for the abdominal viscera, as similar ganglia have not yet been observed in any other part of the body. There is, indeed, a ganglion attached to a branch of the fifth, and placed underneath the skin of the lower jaw, near each angle of the mouth; but it is almost transparent, and corresponds more with that of the gustatory nerve in some of the mammalia." (P. 33.)

From these facts, we think, there can be but little doubt that the true sympathetic system of fishes is perhaps as extensive as in the higher animals; the delicacy of the structure only rendering its finer ramifications of difficult detection. In the tenth plate, the brain of the skate, the sympathetic nerve, is seen to arise "just behind the posterior point of the optic lobes;" and the fifth has two origins, "one from the restiform body, the other from a pedicle or process of the lateral lobe of the cerebellum."

The remaining plates illustrate the anatomy of the turtle, but, in our opinion, are not quite equal to those which illustrate the anatomy of the skate, particularly the splendid one which represents the whole fish.

We think Mr. Swan labours under a slight misconception with regard to the principles upon which the nervous system is developed. It is not to be imagined, as he appears to believe, that comparative anatomists are endeavouring to inculcate the absurd doctrine, that the human brain is really at one time exactly like that of a fish, of a reptile, or of a bird; but only that, during certain periods of the fœtal state, it is in a somewhat similar condition, or state of organization, to the brain of these animals; and not that it absolutely passes through their permanent forms. But these are trifling blemishes in a work of such excellence; and we beg again to recommend it to our readers in strong terms. The present Part, indeed, while equally valuable, will be found much more useful to the student of the anatomy of the nervous system than its predecessor.

ART. XIV.—*A Description of the Bones, together with their several Connexions with each other and with the Muscles; specially adapted for Students in Anatomy.* By JOHN F. SOUTH, Assistant Surgeon to St. Thomas's Hospital. Third Edition.—London, 1837. pp. 146.

WE have examined this third edition of Mr. South's "Description of the Bones" with a great deal of pleasure, and strongly recommend it to students as a much improved work. The great improvements are the introduction of minute, but accurate and distinct wood-engravings of the several bones by Branston, exhibiting the different foramina, angles, tubercles, &c. accurately distinguished, and numbered, with reference to the letter-press, after the manner of Paxton's *Anatomy*, but much more distinctly and accurately. As the bones necessarily form the very commencement of the study of anatomy, and without a correct knowledge of which, of their processes, foramina, tubercles, elevations, depressions, angles, and surfaces, it is impossible to make any permanent advancement in a knowledge of the other parts of the body, we have always felt persuaded that it is such a work as this that ought first to be placed in the hands of the student; not with the expectation that it, even when closely studied, would render him master of the *whole* of the anatomy of the parts, but with the confidence that it would be one of the best means of engaging his attention to those parts, which are proverbially considered dry and uninteresting, however important may be a correct knowledge of them. Who, for instance, when he first took up the sphenoid bone, or the petrous portion of the temporal, or the ethmoid, was ever able to recognize their several parts, by mere printed descriptions, without great labour, and perhaps again and again throwing them aside in disgust, and almost despair? It is in remedying this difficulty, and preventing the loss of time and labour attendant upon it, that Mr. South's work will be found useful; and we therefore recommend it strongly to the attention of pupils and the masters of pupils.

ART. XV.—*Sketch of the Comparative Anatomy of the Nervous System; with Remarks on its Development in the Human Embryo. With Plates.* By JOHN ANDERSON, M.E.S., &c.—4to. pp. 63. London, 1837.

THIS is an useful compendium of known facts, collected and applied to illustrate the development of the human brain. The greater part of the work, as stated in the preface, has already appeared in the *Medical Gazette* of last year, but the author has done well in collecting the whole into a volume. It is justly remarked, also, that a work of this kind did not previously exist in our language. The plan which has been followed by the author has been to treat of the nervous system of different classes of animals, beginning with the lowest forms, and gradually ascending through the scale, comparing, as he passes along, the several different permanent conditions of the nervous system with the analogous transitory conditions of the human foetal brain. In doing this, the author has rendered some service to comparative anatomy in this country; since, although we can discover but few new facts, those which are well known are placed in a favorable view to be understood. The work, however, gives evidence of being compiled by a young author, who has been some-

what too anxious to direct the attention of his readers to his own labours; and, in doing this, he has, unfortunately, sometimes forgotten to notice that he was only repeating the observations of others. There is also a little too much disposition to place his own observations and opinions,—which are often shown, by a few occasional errors, which have crept into them, to be from the hand of a young anatomist,—in opposition to those of the learned authorities whom he sometimes quotes. These are serious faults; because, in doing this, the author is not merely putting forward his own labours, to the exclusion of others, but he is in reality occasioning an injury to himself, by inducing those who would have gladly passed over minor errors, in consideration of his zeal and industry, to pause at such indications of egotism and vanity. Perhaps, when the opinions of the writer are a little more matured by experience, he will find it necessary to correct some of the statements in a second edition of the work; as, for instance, when he says that the lepidoptera have the most highly developed nervous system of all insects; an observation, the correctness of which admits of much doubt. Upon the whole, however, we are pleased with this work, which gives promise of something better than itself, and is highly creditable to the perseverance and industry of its author.

ART. XVI.—*Outlines of a Course of Lectures on Medical Jurisprudence.*

By T. S. TRAILL, M.D., Regius Professor of Medical Jurisprudence in the University of Edinburgh.—*Edinburgh*. 12mo. p. 94.

THIS small work is reprinted from Dr. Traill's Dissertation on Medical Jurisprudence, in the seventh edition of the *Encyclopædia Britannica*, for the use of his pupils in the University. It is a masterly view of the subject, containing in a small compass much information, well considered, judiciously selected, and concisely expressed. To the pupils of Dr. Traill's class it is peculiarly valuable, and those who have completed their education will find it a useful help in keeping up their knowledge of medical jurisprudence, when, from want of time and practical opportunities, what they once knew is fast slipping away from them. To such persons, a short and comprehensive sketch of the chief subjects will bring the details again to their recollection. The medical coroner will frequently find such a guide useful in suggesting to him points that should be particularly attended to in the investigation he may be pursuing, at a time when reference to larger works may be difficult or impossible.

ART. XVII.—*Observations upon the Construction and Use of the Respirator; an Instrument for facilitating the Respiration of Persons suffering under Pulmonary and Bronchial Affections, by Warming the Air inspired, and thereby enabling them to breathe freely in the coldest Atmosphere.* By JULIUS JEFFREYS, Surgeon.—*London*, 1836. 8vo. pp. 12.

No one who has experienced, in his own person, while labouring under catarrhal affections, the effects of sudden exposure to a cold atmosphere, or who has witnessed the common and almost instinctive attempts made by persons so circumstanced to mitigate the painful impression of the air,

by means of the handkerchief, &c., will be disposed to dispute the desirableness of any invention calculated to supply a more perfect and effectual defence against a cold atmosphere, in certain circumstances. To one class of invalids in particular, unfortunately not a small one, those persons, namely, who suffer from such extreme sensibility of the glottis and larynx, that they must remain prisoners in the house (although not otherwise sick,) whenever the air sinks below a certain temperature, or there is a considerable degree of wind, an invention of this sort must be invaluable. Whether the instrument described in the pamphlet now before us is calculated to supply the desideratum in question, we have not had sufficient experience to determine; but the result of an examination and temporary trial of the Respirator, leads us to believe that it will be found very useful in many cases, particularly in those last mentioned. We cannot flatter the author with the hope that his instrument will be worn by healthy persons as a preventive of pulmonary disease, nor yet that it will obviate the necessity, as he seems to anticipate, of sending our patients to warmer climates; still, we do believe that it is calculated to be serviceable within certain limits, and therefore recommend it to the attention of the profession.

The principle on which the instrument is constructed is to make the wearer breathe through a congeries of metallic wires, which being warmed by the repeated expirations, give out a constant supply of heat to the air as it is inspired. The following extract from Mr. Jeffreys's pamphlet, explains the particular construction and mode of action of the Respirator; we may add that being small and extremely neat, its appearance is not calculated to deter such as are really invalids from publicly using it; coloured spectacles are only less formidable because familiarised to us by long habit.

"Since the temperature of any one substance must be lower than that of any other before it can receive heat from the latter by conduction, it is plain that a single layer of metal could only take a part of the heat from the breath; even if the contact were of longer duration than it is, the breath would lose no heat after it had raised the metal up to its own temperature. In order to extract more heat from the breath, it must be carried through another layer of metal, which being much colder than itself, can abstract heat from it. As the breath and this second layer approach towards the same temperature, this second layer will not be able to abstract more heat from the breath. It must, therefore, pass through a third still cooler layer, and, for the same reason, through several. In practice, six or eight will not prove too many, and in the coldest weather double that number may be employed. In this series of laminæ, each is warmer than the one in front of it, from the exterior one, which is nearly of the temperature of the atmosphere, to the innermost one, which is perhaps within ten or fifteen degrees of the temperature of the breath. These laminæ would not remain one instant of time at so different states as to heat, if they were placed in contact with each other. In order to preserve the progressive difference in their stocks of heat, they must be kept apart; and it will be found, that during the short period of one respiration, a very small separation will suffice for the purpose. An interval for each of one fortieth of an inch, including the metal, is more than enough; six or eight layers may therefore lie in one-eighth of an inch. These layers having been warmed during an act of expiration, and being each warmer and warmer as they lie nearer the mouth, are enabled to give heat in the most advantageous manner to the fresh air entering from without, which takes up a parcel of heat in traversing each; since, although it grows more and more warm, it is sure to find every layer it comes to warmer than itself, which is, of course, a relative condition necessary for the communication of heat to the

air. Not only must the conducting metal be divided into distinct laminæ, that air of different grades of temperature may continue subject to its operation, but in each lamina the metal must be reduced to a state of great extenuation, and be placed in such a manner as to effect the utmost possible division of the breath, so that every particle of it almost may impinge against metal, yet that the passage of the air shall be abundantly free, in order that there may be no perceptible obstruction to the progress of the breath. The Respirator has been constructed with minute attention to the above rules." (P. 7-9.)

ART. XVIII.—*An Essay on the Influence of Air and Soil as affecting Health; to which was adjudged the Prize offered by the Reverend THOMAS ARNOLD, D.D., to the Students of the Royal School of Medicine and Surgery at Birmingham.* By ALEXANDER WRIGHT, Student.—*Birmingham*, 1836. 8vo. pp. 56.

THIS little essay is creditable alike to its youthful author, the school whence it originated, and the distinguished scholar whose liberality is the cause of its being written. It contains a concise, well-written, and well-arranged digest of our knowledge on the subjects of which it treats, but affords nothing new for quotation. More than once we have taken upon us to condemn the over-anxiety of young writers to come before the public; and we can only excuse the present publication on the score of the novelty of the occasion, and the particular circumstances attending it. The honour of having written an essay that would do no discredit to his seniors, may not only prove a valuable stimulus to Mr. Wright to exert himself through life, but may excite others to follow his example, and thus benefit his fellows and his school. It is most gratifying to us to observe the progressive advance of the provincial schools, in the successful prosecution of medical education; and we look upon the essay of Mr. Wright as a very favorable sign of the times.

ART. XIX.—*Memoranda for Young Practitioners in Midwifery.* By EDWARD RIGBY, M.D., Lecturer on Midwifery at St. Thomas's Hospital, &c.—*London*, 1837. 48mo. pp. 48.

THIS, we think, is the smallest medical book we ever saw: it is certainly the most minute that has come under our critical revision; and we must say that its value, in our opinion, is in the inverse ratio of its bulk. The author informs us, in his preface, that "he has been for some years in the habit of writing on a large tablet a brief outline of each lecture, for the purpose of directing the attention of his class to those facts and general laws connected with obstetric practice which he deemed of peculiar value, and which he was anxious they should not forget." The little volume before us contains these memoranda, which, from their importance, soundness, and clearness, not only merit the attention of every young accoucheur, but ought to be his daily remembrancer in practice.

PART THIRD.

Selections from the Foreign Journals.

ANATOMY, PHYSIOLOGY, PATHOLOGY.

On Internal Strangulations of the Intestines. By DR. CHARLES ROKITANSKY,
Professor of Pathology in the University of Vienna.

[WE call the particular attention of our readers—medical and surgical,—to the following memoir, which we think will be found to possess peculiar interest. It relates to a class of cases which are the source of much distress to the practitioner, and often of much misconception as to their precise character.]

Dr. Rokitansky divides internal strangulations of the intestines into the three following species:

FIRST SPECIES. *The narrowing or complete obliteration of the canal of a piece of intestine, resulting from the pressure exerted on it at one or more spots, by a smaller or larger portion of intestine or its mesentery, so as to compress it against the opposite wall of the abdomen.*

It is plain that, in cases of this description, the pressure must be chiefly made in the direction of the posterior unyielding wall of the abdomen, and that any effects produced by pressure in the opposite direction must, for obvious reasons, be only very slight and transient. Another observation, the truth of which experience confirms, is, that it is the small intestine or its mesentery which exercises the pressure, and that the large intestine is generally the part that suffers; or, in other words, that the more moveable is most likely to fall upon and compress the more fixed portion of the intestine. Four cases of this species of strangulation are given.

CASE I. The following phenomena were observed in the abdominal cavity of the body of a sugar-baker, aged forty-eight, who died in the General Hospital at Vienna, in 1827. On opening the abdomen, the upper curvature of the sigmoid flexure of the colon was found compressed by the mesentery of the small intestine, which lay in the cavity of the pelvis. The mesentery formed in this situation a roundish peduncle, about three inches long, and an inch and a half in thickness, from which the whole convoluted intestine hung. This string or peduncle, made tense by the weight of the intestine attached to it, lay over the aforesaid portion of the sigmoid flexure, and presented at certain points a tendinous appearance. The colon and a portion of the small intestine were considerably distended.

CASE II. A woman, aged eighty-seven, died in the General Hospital at Vienna, in December, 1834, with symptoms of strangulated hernia. On opening the abdomen, the principal part of the small intestine was found lying in the cavity of the pelvis; five-sixths of this intestine hung from its mesentery, as from a peduncle, over the lumbar vertebræ, into the pelvic cavity. The convolutions were glued together and to the walls of the pelvis by lymph. A small inguinal hernia existed on the right side, containing a portion of omentum. The upper sixth of the small intestine, on issuing from beneath the transverse mesocolon, formed a circular loop, and then, passing under the peduncle above mentioned, towards the right lateral region of the abdomen, made here another circular turn, ran behind the posterior surface of the peduncle, which was flattened by the spinal column, and then descended into the pelvis. In this situation, the upper sixth of the small intestine had suffered a remarkable degree of compression from the peduncle of mesentery and the convolutions attached to it. The compressed portion of intestine was moderately congested, but was considerably distended with fluid feces. The remaining portion of the small

intestine was of a dark red colour, congested, inflamed, and friable. The large intestine was pale and contracted.

CASE III. A man, aged seventy-six, died in the General Hospital at Vienna, in August 1828. For a long time before death, he had laboured under marasmus, and complained of frequently recurring abdominal affections, accompanied by spasms of the stomach, tympanitic swelling of the belly, borborygmi, and obstinate costiveness. In addition to some morbid alterations in the liver and stomach, the following phenomena were observed on dissection. The sigmoid flexure of the colon, enlarged in its diameter to the extent of five inches; had passed upwards across the umbilical region into the right hypochondrium, and pushed the transverse colon and omentum towards the left side. The space below the umbilicus, even on this side, and the cavity of the pelvis, were filled with the convolutions of the small intestine, which hung over the portion of the sigmoid flexure that lay across the vertebral column, and compressed it by means of its mesentery. Above this spot, the sigmoid flexure was of a morbid red colour, its coats above a line in thickness, and its mucous lining, as well as that of the rectum near the sphincter ani, congested. The lower part of the ileum was connected to the ascending portion of the sigmoid flexure by a strong band of false membrane.

CASE IV. A baker, aged eighty-seven, who had laboured under a very old and large hernia, was brought into the General Hospital at Vienna, on the 18th of November, 1828, with symptoms of strangulation of the intestine, and died shortly after admission. On opening the abdomen, the following circumstances were noticed. The intestines were excessively distended, and had compressed the liver and stomach, so as to alter their position very considerably. The small intestine was covered with purplish spots, greatly distended, its tissues very much congested, and its peritoneal coat thickened by patches of effused lymph. The cæcum and ascending colon, whose coats exhibited the same alterations, were distended with air and feces to a diameter of four inches. The lower part of the small intestine lay in the hernial sac, while the remaining portion, several convolutions of which were united by false membranes, was, together with a very long mesentery, thrown upwards into the right hypochondrium, across the right flexure of the colon, and exercised such a degree of pressure on the latter, by means of the weight of its contents (which amounted to four or five pounds), that air could not be forced through the compressed part of the colon. The transverse and descending colon, and the rectum, were pale, and reduced in their diameter.

From the foregoing cases it appears, that this species of strangulation occurs most frequently in persons considerably advanced in life, and that the tendency to its formation is caused by length and laxity of the mesentery, fecal accumulations in the bowels, large and old herniæ, and adhesions of the convolutions of the intestines to each other and to the mesentery. It is generally slow in its progress, and may terminate in complete strangulation, in cases where the portion of intestine immediately above the compressed spot is so loose and distensible as to admit of being folded over the strictured part.

SECOND SPECIES. This may be termed *Rotatory*, as it consists in the *rotation of one part round an axis*, formed by some other part: it includes three sub-species:—1st, *the rotation of a portion of intestine round its own axis*; 2d, *round an axis formed of the mesentery*; 3d, *where a portion of intestine forms the axis round which another larger portion with its mesentery turns, so as to touch the periphery of the axis at every point*.

Of this form of strangulation, which is only a more complete development of the first species, the following cases are given:

CASE I. A man, aged fifty-four, died in the General Hospital at Vienna, in December, 1834, with symptoms of strangulated hernia. In addition to extensive inflammation and adhesions of the peritoneum, the following circumstances were observed:—The small intestine, (with the exception of a portion contained in the hernial sac), the cæcum, and the ascending colon were enlarged to four times their normal diameter. The small intestine lay in folds closely pressed together, while the ascending colon with the cæcum, distended with air and feces, projected far beyond

all the rest of the intestines, and was twisted inwards and around its own axis, so as to lie almost parallel to the transverse colon, and form with it such an extremely acute angle, as to obstruct the further passage of the contents of the intestine. The remaining portion of the colon and the rectum were pale and narrowed in their caliber.

CASE II. A woman, aged seventy-one, was admitted into the General Hospital in December, 1830, with symptoms of strangulated hernia, which was reduced by the taxis soon after her arrival. Ten days afterwards she died. The hernia had occurred in her fiftieth year, and had never increased beyond the size of a pigeon's egg, but she was during the latter part of her life subject to repeated attacks of obstinate costiveness, colicky pains, and inclination to vomit. On opening the body, organic derangements of the solid viscera of the abdomen were observed, with traces of peritoneal inflammation. The mesentery, which was folded and rolled up at the bottom, formed a spindle-shaped axis, four inches and a half in length, and an inch and a half in thickness, round which the small intestine was twisted. From the termination of the duodenum, the jejunum descended towards the right iliac fossa, and twisted itself in front of the spine round the axis before mentioned, which, by means of the convolutions attached to it, compressed the portion of intestine which passed under it. From this point the jejunum made two turns more round the axis of mesentery. The ileum then made three revolutions, and passing towards the right iliac fossa, covered for the most part by the windings of the jejunum, went to join the cæcum. The last portion of the ileum was greatly compressed, scarcely a finger's breadth in diameter, its coats discoloured, soft, and friable; about two inches from the valve of the cæcum, it exhibited a perforation capable of admitting a hazel nut.

CASE III. A woman, aged seventy-two, who had suffered for many years from costiveness, pain, and distention of the abdomen, was admitted into the General Hospital on the 25th of June, 1833, with symptoms of fever, epigastric tenderness, tympanitis, and nausea. On the following day she had feculent vomiting, which was frequently repeated, and she died on the 28th. On opening the abdomen, traces of peritoneal inflammation were found, together with numerous adhesions. The mesentery was very long, and twisted once and a half round its own axis, so that the ileum was forced up into the upper part of the abdomen, while the jejunum lay deeper under the ileum, the whole convolution of this intestine lying chiefly in the left umbilical region. Under the string of mesentery, and compressed by it against the left side of the vertebral column, the ileum, about a foot and a half from its junction with the cæcum, ran from above downwards and towards the right side, while the upper portion of the jejunum ran under the string in an opposite direction from below upwards and towards the left side. Consequently, the two terminating portions of the small intestine were constricted, and separated as it were by a ligature from the rest of the intestinal tube. At this point, the coats of the intestine were congested, of a dark red colour, soft, and friable.

CASE IV. A woman, aged forty-six, was admitted into the General Hospital on the 14th of January, 1833. Two years previously, she had been frequently attacked with pain in the back, and tympanitic swelling of the belly. About twelve months afterwards, she was seized, while lifting a load, with a sharp pain in the right inguinal region, and, from this period, was subject to tingling sensations in the feet, violent colic, and bilious vomiting. She stated on admission that her symptoms had been caused by an error in diet: there were, great anxiety and restlessness, tenderness of the abdomen, bilious vomiting, sinking of the pulse, and coldness of the extremities. She died on the fifteenth. In addition to remarkable degeneration of the right ovary, the following phenomena were observed. The colon and rectum were contracted, pale, and empty. The right ovary, which was enlarged so much as to measure nine inches in length, had ascended out of the pelvis and lay in the left iliac region. The lower end of the tumour was attached to the broad ligament of the uterus, the upper end was directed obliquely upwards and outwards, and attached by a membranous band about an inch in breadth to the upper surface of the mesentery of the jejunum. Under this enlarged ovary, ran, first the portion of intestine which lay behind its attachment to the mesentery, and lower down, another portion from the left to the

right side; the intestine then descended into the right iliac fossa. At this place, the whole ileum with its mesentery, passing behind and beneath the cæcum, which had a loose mesentery, turned upwards and fell on the inner side of the ascending colon, and over the ovarian tumour. In this way the cæcum was at this point separated from the ascending colon, and strictured so as scarcely to admit the passage of a probe. It was greatly distended, and projected beyond the surrounding convolutions of the intestines, close to the ovarian tumour. Its coats, as well as those of the small intestine, were thickened and injected, and both intestines were loaded with fecal matter.

CASE V. A woman, aged forty-eight, was brought into the General Hospital, in the latter end of May, 1834, with symptoms of strangulated hernia. The intestine was replaced with facility, and with some relief of her symptoms, but she died on the 2d of June. About two pints of a dirty greyish fluid, mixed with fecal matter, were found in the cavity of the abdomen. The small intestine was distended, and presented marks of congestion and peritoneal inflammation. One of the convolutions of the ileum adhered to the commencement of the hernial sac, which had escaped through the right inguinal canal, and, with its mesentery, formed a firm ridge or column directed from below upwards. The next portion of the ileum, which was about three feet in length, had passed under this column from within outwards, and then upwards and inwards, and at the same time was turned over it opposite the brim of the pelvis. In this way the canal of the ascending and descending portion of the gut was compressed against the column, and strictured. The strictured parts were of a dark red colour, and at one spot exhibited a perforation about the size of a pea. There was no appearance of stricture in the hernial sac.

CASE VI. A man, aged sixty-one, was admitted into the General Hospital in April, 1830, with symptoms of inflammation of the bowels. He became gradually worse, had feculent vomiting, and died on the eighth day of his illness. He had laboured, during the latter part of his life, under obstinate costiveness, colic, and swelling of the abdomen, and was said to have brought on the last fatal attack by carrying a heavy load. Effusions of serum and lymph were found in the cavity of the abdomen; the small intestine, and the ascending and transverse colon, were greatly distended, their coats congested, discoloured, and friable; the descending colon and rectum were pale and contracted. The mesentery was very long, and exhibited several adhesions; the mesocæcum and mesocolon were also uncommonly long and lax. In consequence of the laxity of their attachments, the cæcum and colon, as far as the right flexure, had twisted on their axis from below and without upwards and inwards, and lay in the left side of the abdominal cavity. The mesentery of the small intestine, following this track, and running from below upwards, had thrown itself with its intestine across the transverse colon, and from thence descended into the right lumbar and iliac regions. In this way, the part at which the fold formed by the twisting of the intestine round its own axis was situated, was further strictured by the mesentery which lay across it, and compressed it still more tightly as the weight of its intestine increased. At the point of stricture, the intestine was friable and gangrenous, and exhibited perforations, through which the fluid fecal matter was dropping into the cavity of the abdomen.

Pure, uncomplicated cases of the second species of internal strangulation, occur, like those of the first species, only in persons advanced in life; when present at an earlier period, the tendency to their development is, in general, favoured by the existence of large or small hernia with adhesions of portions of the intestines to the walls of the abdomen, or by the pressure of accidental products, which alter the position and attachments of the abdominal viscera. They are observed most frequently in females, and in them, depend most probably on the local disposition of the parts contained in the abdomen. The rotation of a portion of intestine round its own axis can scarcely occur in any portion of the intestinal tube, except the ascending and transverse colon; rotation round the mesentery, as an axis, can happen only to the small intestine; whereas any portion of the small intestine, the cæcum, and, perhaps, also, the sigmoid flexure of the colon, may form the axis in the third variety. Strangulations of the second species are slow in their development, and appeared to be connected with the same external causes which determine those of the first species.

THIRD SPECIES. This is caused by some peculiar arrangement of parts, the result of original malformation, or of previous disease. *These strangulations of the intestine occur in circular or fissured spaces, formed, 1st, by fibres or bands of cellular membrane running from one organ to another; 2dly, by adhesion of the free end of the vermiform appendix to some spot of the walls of the abdomen, or to a portion of intestine or mesentery; 3dly, by adherent diverticula; 4thly, by the adhesion of two convolutions at a single point; 5thly, by perforations in the mesentery, or by fissures in an omentum altered by disease.* The following cases are given in illustration of this species of constriction.

CASE I. A woman, aged sixty-one, of full habit and robust constitution, was admitted into the General Hospital, on the 26th of June, 1828, with violent pain and distension of the abdomen, obstinate costiveness, fecal vomiting, sinking of the pulse, and coldness of the extremities. She died shortly after admission. On opening the abdomen, the following phenomena were observed: The whole of the intestines, with the exception of the descending colon, were distended, congested, and covered with patches of lymph. The cæcum, and ascending and transverse colon, were enlarged to four times their normal diameter; the coats of the intestine were thickened, vascular, and softened. From the transverse colon, close to its left flexure, a strong tendinous band ran obliquely along the left margin of the omentum, and, then running for the length of three inches towards the right side and downwards, attached itself to the right ovary, which projected into the upper pelvis. This band, making a turn and a half round the left flexure of the colon, its mesentery, and a portion of omentum, constricted the intestine at two points in such a manner as to obliterate its canal completely, so that air could not be forced through it. The descending colon and rectum were pale and contracted, the right ovary remarkably altered in its texture.

CASE II. Madame E., mother of several children, had suffered repeatedly from pain, tenderness, and distention of the abdomen, with great anxiety, and tendency to syncope. These symptoms were usually diminished on the occurrence of bilious vomiting, and completely disappeared after free evacuations from the bowels. In the Spring of 1832, she got a violent attack, which resisted every plan of treatment, and she died after thirty-six hours of intense suffering. In addition to inflammation of the peritoneum and effusion into the cavity of the abdomen, the following circumstances were noticed. Numerous threads and bands of cellular membrane extended from the uterus to the neighbouring viscera. One of these, about three quarters of an inch in breadth, stretched from the back of the uterus to the rectum, and, expanding in its course, attached itself to the latter down as far as the folds of Douglas. Between this band and the posterior wall of the uterus, there was a fissure, capable of admitting only a single finger, through which a loop of the ileum about a foot in length had passed, and was so much constricted, that a probe could scarcely be introduced between it and the margin of the fissure. The strangulated portion of intestine was distended with air and a fluid of a dark red colour, its coats measuring a line and a half in thickness, friable, and intensely congested.

CASE III. A servant, aged twenty-four, of powerful muscular make, who had frequently laboured under violent pain of the bowels, was admitted into the General Hospital in 1829, with symptoms of obstinate costiveness, followed by inflammation of the bowels and feculent vomiting, and died shortly after admission, notwithstanding the sedulous employment of every means likely to afford relief. On opening the abdomen, traces of extensive peritoneal inflammation were visible. The small intestine, to within about a foot and a half of its termination, was distended with air and feces to three times its normal diameter; the remainder, and the whole track of the large intestine, were contracted. At the point of separation between the distended and narrowed portion of the ileum, a diverticulum, five inches in length, and narrowed at certain points to the thickness of a piece of whipcord, descended from the upper wall of the intestine through a noose, (to be described presently,) and, about two inches from its attachment, adhered by firm cellular membrane to the under surface of the mesentery of a portion of intestine which ran parallel to it. Through the ring formed in this way, and which was about two inches and a half in diameter, passed, in the first place, the loop of intestine between the two fixed points of the diverticulum, and

then a second and a third loop; the surface of these loops exhibited four spots excessively constricted and gangrenous, particularly that which lay immediately above or in front of the place where the diverticulum quitted the intestine.

CASE IV. A man, aged thirty-six, was brought into the General Hospital, on the 3d of May, 1835, with the following symptoms: Violent pain and tension of the belly, tenderness on pressure, anxiety, thirst, vomiting, cool skin, small, frequent, wiry pulse. He attributed his illness to cold caught by sitting on the grass. His symptoms yielded to the usual remedies for some time, but returned with violence on the 8th of May, accompanied by obstinate costiveness and feculent vomiting, and he died on the 12th. On dissection, the following state of the intestinal tube was observed, in addition to extensive peritoneal inflammation. A ligamentous band of cellular membrane, two inches and a half in length, and half an inch in breadth, was stretched across the anterior surface of the mesentery of a loop of the ileum about a foot in length; the two ends of this band were inserted into the mesentery, close to the intestine, and were about three inches distant from each other at their termination. At the left side, close to the insertion of this ligament, the loop of intestine turned forwards and upwards over the ligament, and then descended through the fissure formed between it and the mesentery. In this way, the ligament was twisted into a dense string, about the thickness of a moderate packthread, and rendered half an inch shorter, so as to exert a strong degree of compression on the loop of intestine and its mesentery. The incarcerated portion of intestine was greatly thickened, infiltrated with blood, and of a dark green colour. The intestinal tube, above the stricture, was inflamed and distended; below it, pale and contracted.

CASE V. A woman, aged thirty-one, of robust habit, was admitted into the General Hospital on the 21st of September, 1828, with symptoms of violent enteritis, obstinate costiveness, and vomiting, and died about twenty hours after her arrival. It was stated, that about three years previously, during her third pregnancy, she had felt an acute pain and sense of laceration in the umbilical region, while lifting a sack of meal. The pain yielded to rest, but returned whenever her bowels became confined, and was generally relieved by aperients. The peritoneum was extensively inflamed, the coats of the intestines discoloured, soft, and friable. A hole about three inches in diameter, and with a firm, rounded, smooth margin, was discovered in the mesentery of the ileum close to the cæcum, through which the cæcum had passed from behind forwards. In consequence of this, the ascending colon was half twisted round its own axis, and so firmly compressed against the margin of the perforation, that even air could not be forced through it. Below, the cæcum had drawn with it through the aperture a considerable portion of the ileum, which with its mesentery was twisted several times, where it lay next the lower half of the ring. The cæcum was swelled to the size of a large gourd, forced into the left iliac region, and surrounded by the folds of the distended ileum; beyond the constricted part, the large intestine was pale and contracted.

The following conclusions are deducible from the foregoing cases, with reference to strangulations of the third species. 1st. Cases of this description are very numerous; indeed, they appear from Professor Wagner's Essay to be the most frequent. 2d. They occur, with few exceptions, in youth and middle age, and particularly in females. 3d. They arise most probably from every cause capable of altering the position of certain portions of the intestine, and determining their passage through the ring-shaped or fissured openings. 4th. The tract of the small intestine is most liable to this species of strangulation; it may happen also to the freer and more moveable portions of the large intestine. 5th. The abdominal affections observed occasionally in certain individuals for many years before the fatal termination, authorize us to conclude that strangulation of this kind, with many of its varieties, may frequently take place, but that the intestine may be again released, and that rest, but still more, mild purgatives, by their effect on the vermicular motions of the intestines, may contribute largely to the production of this result.

From the consideration of all the foregoing cases Dr. Rokitsky draws the following inferences with reference to diagnosis:—

1. No age precludes the possibility of the occurrence of internal strangulations of

the intestines; they occur, however, most frequently in the middle and advanced periods of life.

2. For a longer or shorter period before the fatal termination, the patient is attacked from time to time with symptoms indicating a strangulation of the intestine. These originate either from an error in diet, or from some violent bodily exertion, and generally commence with a sudden cutting pain in the bowels, (which, in some cases, proceeds from a determinate point,) followed by more or less rapid, visible distention of the abdomen, tympanitis, constriction of the chest, sense of anxiety, nausea and vomiting, according to the violence and duration of the strangulation. In addition to these affections, and even without them, the patients generally labour under a sluggish state of the bowels, and even costiveness, lasting for a considerable time. By rest, gentle aperients, and favorable positions of the body, these symptoms are frequently mitigated or dissipated, but are again reproduced by the original cause, and finally terminate in a fatal attack.

3. This attack generally arises from some error in diet, and sets in with *sudden* and violent pain in the bowels, which gradually extends over the whole abdomen. The belly is excessively distended and tympanitic, the respiration laboured, the eyes sunk, the countenance altered, and expressive of great anxiety. The alvine evacuations are small and scanty, or there is obstinate costiveness. The patient vomits, at first bilious, and afterwards feculent matter; the temperature sinks, and the pulse can scarcely be felt. A remission of the symptoms usually takes place shortly before death.

4. The course of this affection is in general very rapid; it seldom kills the patient before the second day, and frequently runs on for six, eight, or ten days. It rarely extends to the third week, and when it does, is interrupted by remissions and apparent improvements.

5. It may be distinguished, in most cases, by the appearance of the patient; by the preceding attacks, their origin from a determinate cause, and their course; by the intervals of ease between the attacks; by the suddenness of the attack, and its progressive increase after a certain period, and finally by the insurmountable costiveness.

With respect to treatment, Dr. Rokitsansky rejects all medicine, but particularly purgatives, when the disease has reached a certain point, and proposes *the knife* as the only means of relief. He gives some general directions respecting the best mode of relieving the stricture, and preventing its return, and concludes by remarking, that further observations must decide on the admissibility of the plan of treatment which he has proposed.

Medicinische Jahrbücher des Öst. St. xix. Band. iv. Stück. 1836.

On the Ciliary Motions in the Brain. By M. PURKINGE.

It has at length occurred to me to discover cilia, and their motions, in all the cerebral cavities of mammalia. In the preceding summer, while examining the *chordæ Bergmannicæ*, having observed, on fine slices of epithelium, a structure similar to that of the ciliary membranes, I conjectured that it would be found to possess the same function. Accordingly I made many investigations with the view of discovering this, but in vain, until the 28th of May of the present year (1836,) when I detected the ciliary motions, in the greatest activity, in the brain of the full-grown foetus of a sheep, about thirty hours after death. The cilia were very distinct on all the walls of the cerebral cavities, and even where they were not in motion. I traced the motions, without difficulty, through the third ventricle into the infundibulum, then through the aqueduct of Silvius into the fourth ventricle. Here there was no motion perceptible, but the cilia themselves were distinctly visible, although somewhat shorter than in the former situations. The cilia are proportionately long pointed, (not ragged as in the bronchi,) and vibrate thong-shaped, (*peitschenförmig*;) we can also distinguish a layer of granules, in which they are fixed, and which can be easily stripped off without destroying the continuity of the epithelium. I recently observed them in the brain of a sheep; and Dr. Valentin saw them in the full-grown foetus of a sow; but they could not be

detected in a much younger fœtus of the same animal, probably because the parts are too fine for our gross instruments. In these observations I could remark that the cilia in the ventricles of the brain were much more sensitive and easily destroyed than in any other structure. I could not detect them in the brain of a sparrow, nor in a carp, nor in a diseased human brain. Probably they are in all parts very transient, yet readily reproducible; at least, this may be considered as made out in regard to the ovaria and mucous membrane of the nose.

Müller's Archiv. No. III. and IV. 1836.

On the Ciliary Motions in Man. By C. T. VON SIEBOLD.

THE author of this paper has continued the experiments of Purkinge and Valentin, and he has added some facts which he has himself noticed, respecting the existence of the vibrating cilia upon the mucous membranes in man. He found these cilia upon the whole surface of a nasal polypus, one hour after its removal from an adult. The length of these ciliæ was 0.0028 and 0.0022 of an English line. The motions of the cilia upon one polypus which was examined, were found to be quite regular in their rhythm: in some parts they moved backwards and forwards 300 times, in others 320 times, in others 190 times, in a minute. The movements were always in the same direction; and, when once they ceased, were never resumed. By a very accurate examination, M. Siebold says that he has ascertained that each cilium curves its free extremity towards the part to which it moves, and that small globules of mucus, when in the vicinity of this oscillating body, are thus propelled in the same direction as the curve of the cilia. On condylomata at the entrance of the vagina no cilia could be discovered. They were also not found on the bronchial mucous membranes of those who had died of pneumonia, or of those who had suffered before death from a copious bronchial mucous secretion. In warm weather, also, it is useless to look in the human corpse for the cilia upon mucous membranes. M. Siebold has examined other membranes without finding any cilia; e.g. synovial membranes, sheaths of tendons, the internal surface of arteries and veins, that also of the vessels of the placenta, as well as serous membranes in animals the mucous membrane of whose bronchial apparatus presented an abundance of cilia. M. Siebold recommends all those who are anxious to examine this phenomenon to first experiment upon bivalves, (*Unio pictorum*, *Anodonta anatina*, *Cyclas cornea*;) for in them the cilia are most evident and their motions most easily recognized, abounding as they do upon their gills, tentacula, intestinal canal, &c. Having once witnessed the structure in these animals, it will be readily ascertained in man and other animals.

Medicinische Zeitung, No. 28. 1836.

On Secondary Abscess. By Dr. H. NASSE, of Bonn.

THE object of the distinguished author of this memoir, who has himself had abundant opportunity of investigating the pathology of Secondary Abscess, is to compare the result of his own observations and views with those already published by Rose, Dance, Cruveilhier, and others.

Under the term "*Secondary Abscess*" are now included, as is well known, such collections of pus as arise in consequence of external injury, whether from accident or from surgical operations; from the latter more especially when they refer to the *veins*. Such secondary formations in internal organs may, however, be equally the result of spontaneous suppuration in external parts, the more readily if the latter have its seat in the veins. Three stages may be distinguished in the formation of secondary abscess. The first is marked by infiltration of blood; the second stage, that of incipient suppuration, by the yellow colour and a lax state of the affected part which is inclosed within an indurated vascular web. In the last stage pus is found collected within cells, and ultimately within a cavity, whilst its cyst has become yet more condensed, its surface still remaining vascular. One peculiarity of the secondary affection is, that the infiltration, whether of blood or

pus, is distinctly circumscribed. The pus is usually yellow and thick, at times (as Mr. Rose observes) not unlike tubercular matter. Towards the centre, the mass is fluid.

1. *In individual organs.* In the *Lungs*, we at first discover dark red and perfectly circumscribed patches, rather lighter in colour, though otherwise much resembling the morbid spots occasioned by pulmonary apoplexy. The next change is to a yellow colour, varying in shades, and ultimately modified by a pale reddish tint. As in grey hepatization, the parenchyma yields a small quantity of puriform matter on compression. The more yellow the colour, the more lax the substance becomes, until at length it may be pressed into a pulpy mass. A great degree of porosity is remarkable in the parenchyma thus morbidly changed, especially during the second stage, and its specific gravity is, upon the whole, less than in common hepatization. As the suppurating process advances, the pus collects in numerous cells, whose envelopes consist of cellular tissue and blood-vessels. These envelopes first disappear at the centre and progressively towards the circumference, until the pus is at length contained in a single cavity with hard, dense, indurated, and vascular parietes. The pus now assumes a greenish yellow colour, is viscid, and contains membranous filaments, as appears on its being mixed with water. Both the number and the size of these pulmonary abscesses are extremely various, and in the same lung several abscesses are sometimes discovered in various stages of progress. Their seat is commonly in the inferior lobes, and at the then lower extremity of the latter; they are, however, occasionally met with in the upper lobes as well. The posterior portion of the lungs appears most liable to them. Rose asserts that the greater number of abscesses are seated directly beneath the pleura; but they are frequently observed in the very midst of the viscus. When at all superficial, they may be recognized from without the lung, by a corresponding yellowish spot on its surface. The observation of Cruveilhier is deserving of great attention, that the ramifications of the pulmonary artery leading to the morbid part are in some cases found to contain coagula extending to the minute extremities of the vessels. In the smallest branches these coagula are blood-coloured and tolerably firm; in the larger branches yellow and soft. Some of them contain puriform matter within their disorganized mass. In several cases examined by Dr. Nasse, some of the branches of the pulmonary artery contained perfectly formed pus; and, on following the course of the artery, he discovered decided traces of inflammation in its coats, accompanied by a species of gelatinous exudation. Thus the suppurative process appeared to be further advanced in the smaller branches than in the larger and more conspicuously inflamed ones. When the lungs contain these abscesses, the pleura almost always exhibits inflammation, is usually enveloped in a false membrane, and sometimes contains within its cavity a reddish, foetid, and flocculent, or even purulent fluid. If this fluid be at all copious, the lung is necessarily compressed by it, and yet it will be found to contain more or fewer abscesses; a proof that the formation of the latter preceded the other morbid phenomenon.

2. *In the Liver.* At first dark brown spots are discovered, which Cruveilhier ascribes to a discoloration of the granules of the parenchyma. At a later period, when purulent infiltration commences, these granules become yellow, and are surrounded by brownish slate-coloured laminæ, so that the whole part assumes the appearance of granite. As suppuration proceeds still farther, the colours gradually blend together, until the whole presents a homogeneous mass. The size of the abscesses varies from that of a pea to that of a hen's egg; their number from a single one to thirty or forty, but they are more frequently numerous than otherwise. When they occur near to the surface, the peritoneal covering of the liver assumes, close above their seat, a slaty, but in the more developed stage, a yellow colour. The form of the abscesses is irregular, round or oval, and indented. The mass they contain is yellow, gritty, except in colour, not unlike macerated parenchyma of the liver. It adheres to the parietes of the abscess, but is easily separated from it by pressure. The author never found *healthy* pus, or, like Cruveilhier, matter resembling turbid milk, in those cavities the parietes of which constitute a

perfect cyst. The hepatic veins sometimes penetrate the abscess without appearing injured. Several small veins (probably belonging to the vena portæ,) leading away from the cysts, were in certain instances found to contain purulent matter; whilst the larger and rather more remote veins exhibited coagula. In one case of some standing, the branches of the vena portæ leading to an abscess were found to have their channels obliterated. In the vicinity of large abscesses yellow spots were here and there observed.

3. In the *Spleen*. According to Cruveilhier the spots are at first dark red, and of a spherical form, precisely as in apoplexy. Hennin states that suppuration is preceded by the formation of indurated spots.

The *synovial membrane* was once found by the author in contact with healthy pus. The surface of the membrane exhibited roughness, but no inflammatory redness.

It is of the greatest importance to the pathology of this disease to determine, as far as possible, the local relations of secondary abscess to the primary affection. It is remarkable that French pathologists alone have persevered in affirming that injuries of the head are particularly disposed to affect the *liver* with secondary abscess. English pathologists, generally speaking, deny the truth of this proposition, and those of all other countries do not, upon the whole, ascribe any precedence of sympathy in this respect to the liver when compared with other organs, such as the lungs and pleura, the spleen and peritoneum. The results of Dr. Nasse's observations would seem to prove that injuries of the head are most frequently attended by secondary affections of the lungs, together with the pleura, or of the lungs exclusively, and at times simply of the pleura. With the liver, the lungs are in most cases simultaneously attacked, or else the spleen. This latter organ is more commonly found filled with incipient or with perfect abscesses, in injuries of the head, than in those of any other part. Femoral wounds, amputations and fractures of the bones, far more easily occasion abscesses in the lungs only (with or without pleural exudation,) than in the liver alone, or in the lungs and liver at once. Abscesses in the lungs are as 11 to 3, when compared with those of the liver, and with those of both organs simultaneously, as 10 to 4. In femoral injuries, Dr. N. has never observed abscesses exclusively in the liver. According to Cruveilhier's experiments, mechanical irritation of the inferior vena cava in animals is always productive of pulmonary abscess. Pus has been detected within the hip-joint, and the bursa mucosa lately described by Fricke has been found replete with it. The knee-joint has sometimes presented the same phenomenon, as well as most of the other joints. In one case of suppuration at the shoulder-joint, the pus had burst through the capsular ligament and had flowed down the arm, filling the cellular sheaths of the veins, so as at first to make it appear as if these vessels themselves were charged with pus. In like manner pus has been discovered collected within muscles.

Secondary inflammation less rarely attacks the intestinal mucous membrane than either the peritonæum or the pericardium. In an inflammation of the great saphena vein, Laver found the pleura to be the exclusive seat of the secondary affection. Others have observed phrenitis, though unattended with suppuration, to succeed idiopathic phlebitis. According to Dr. N.'s own experience, amputation is more frequently productive of abscess in the lungs than in any other organ. From injury of the upper extremities, he more commonly met with hepatic abscess, alone or conjoined with that of the lungs. Dr. Nasse's experiments, in which he injected from two to three drachms of ill-conditioned pus into the jugular vein of dogs, had no apparent effect upon the animals. Nor did he, on killing them, after the lapse of a few days, discover any morbid symptom in any of their internal organs. With other physiologists the same kind of injections, repeated until they caused the animal's death, were found to have produced signs of inflammation in the heart, the lungs, and the intestines.

Suppuration having its seat in the veins which proceed from the uterus, the bladder, or the rectum, may occasion secondary abscess in the liver, without sympathetic affection of the lungs. The latter are however occasionally attacked

from the same cause without any concomitant affection of the liver. It is singular that whilst one author refers pulmonary, hepatic, splenic, and cerebral disease to suppuration of the uterine veins, Dance, who had equal opportunity for observation in this respect, excludes both the liver and the brain from the list of organs thus affected and substitutes for them the synovial membranes.

The symptoms connected with the incipient stage of secondary inflammation always indicate a violent affection of the whole system. They seldom begin to develop themselves before the tenth day from the commencement of the primary affection, most frequently at some period between the tenth and the twentieth day, and occasionally not until after the lapse of several weeks (Cruveilhier), or even a couple of months, in rare instances. We should, in fact, scarcely overstep the truth in affirming that the generation of secondary abscess continues to be a possible event so long as the act of primary suppuration lasts, more especially where bones are laid bare and imbedded in pus. No period of age, no constitution, even the most robust, is exempt from the danger, although those addicted to the use of ardent spirits appear most of all exposed to it. The treatment of the primary disorder seems not in any sensible degree to influence the development of the deuteropathic affection. In every case the attack sets in with a severe affection of the vascular system; the patient is at first almost always seized with rigors, which, without being followed by any considerable heat, end in copious perspiration. The rigors commonly return several times, either at irregular periods, or, as is sometimes the case, as regularly as in quotidian fever.

Although the great branches and the trunks of the veins of a member may be discovered in a state of suppuration *after death*, the development of the more general symptoms is nevertheless seldom preceded by the phenomena of acute phlebitis. A short time previously, the wound may appear inflamed, or the limb exhibit an œdematous swelling, from which latter circumstance a disturbed state of the venous circulation may with certainty be inferred. After the attack of rigors, the suppurating surface *generally* dries up and presents a pale and deadened appearance, remaining thus or secreting an ichorous fluid during the whole of the ensuing period. Occasionally, however, suppuration continues unaltered, both in quantity and in quality; nor, if the injured part be inflamed, is the inflammation always and necessarily arrested by the secondary affection. The commencement of the constitutional symptoms is in most instances very sudden, the patient having up to that moment felt tolerably well and comfortable. A more gradual development is of course observed when the locality of the primary lesion is in itself sufficient to occasion constitutional or sympathetic disturbance; as, for instance, in the vicinity of the brain. The secondary affection is at times unattended by any local symptoms during life; in more instances, however, such symptoms display themselves sooner or later, but most commonly within a couple of days after the constitutional ones have set in. Before this occurs, the primary suppuration, which may have either become deteriorated or been suppressed, is sometimes found to resume its healthy character. Where the lungs or merely their serous envelope are affected, cough, oppression of the chest, dyspnoea, and anxiety mostly ensue. Percussion and auscultation throw but little light upon the nature of the existing affection, and it is only a copious discharge into the pleural cavity that can be recognized by such means: examples were met with by Dr. N., wherein none of the symptoms above adverted to manifested themselves. Thus, a youth, aged fifteen, although continually uttering plaintive cries, had no cough, and complained of nothing particular. On opening the body, an extraordinary quantity of a puriform fluid was discovered within the pleural sacs, besides several extensive abscesses in the lungs. In another instance the existence of lobular pneumonia remained undetected during life; this however arose from a complication with disease of the brain, at the convex portion of which large abscesses had formed. Where the seat of secondary disorder is the liver, the patients generally complain of pain in the left hypochondrium (which however does not always increase on pressure,) as well as of pain near the right shoulder-blade. Jaundice is a very frequent, though by no means a necessary attendant upon this hepatic affection.

During the development of the local symptoms, the patient sinks into a typhous (adynamic) state, which, if it comes on at an early period, may suppress all expression of pain. The tongue becomes dry, oftentimes brown, the skin hot; the strength rapidly sinks; the patient evinces great restlessness, is usually delirious, often continued so, though sometimes only during the periods of febrile exacerbation; ultimately he falls into a stupor, and it is only in the more rare instances that the brain maintains its activity unimpaired until death.

The pulse is in general very frequent, (though, in rare cases, slow;) often irregular, and weak. The fever is of the continued kind, occasionally with exacerbations. When the disease has assumed the course above described, it is certain to end in death, frequently within a few days (from three to five,) from the commencement of the secondary symptoms, or even still more speedily; in not a few instances very suddenly and unexpectedly.

The symptoms which succeed the injection of pus into the veins of animals differ from those observed in the human subjects, and that no less in the cases where the animals continue to live, than in those where the artificial disease occasions their death. It is worthy of remark that the system here strives to disburden itself of the alien matter by means of augmented excretions both of feces and urine.

[The observations and notices, of which the foregoing is rather an abstract than a translation, constitute the basis of a long and able enquiry into the pathogenesis of secondary abscesses. These the author appears inclined to consider as connected with phlebitis, which in its turn is supposed to originate in deterioration of the blood, owing to the reabsorption of pus or other disorganized matter into the venous circulation. Our limits prevent us from following the author through this interesting enquiry, for the details of which we must refer to the original article.]

Rust's Magazin. Fünfundvierzigsten Bandes, Drittes Heft.

Observations on the best Mode of Demonstrating the Internal Structure of the Heart, and on the Septum of the Auricles in Man. By Professor RETZIUS.

WITH a view to obtain a more instructive representation of the heart in its natural state than has hitherto been done, the author has for some time pursued the following method, which exhibits the cavities and the situation of the valves in a distinct and correct manner. The heart having been removed from the subject, in connexion with the liver, the venæ cavæ, the aorta, and the lungs, and having been properly freed from blood by injections of water, is steeped in a mixture of oil of turpentine and spirits of wine. The cavities are then amply injected through the pulmonary and superior venæ cavæ, the aorta, and the pulmonary artery, with a mixture of white wax and oil of turpentine. As soon as the mass is firm, the heart, together with the great vessels, is separated from the rest, the extremities of the vessels are tied, and the preparation, having been cleaned with the scalpel, is left to dry. When thoroughly dried, it is macerated in spirits of turpentine, till the wax is softened or entirely dissolved. In this manner the heart and arteries are emptied after the walls have dried over the wax forms, which were true casts of the natural cavities, their septa and valves, &c. The parietes themselves, being impregnated with turpentine, lose little of their natural thickness. The parietes may now be either cut open or rendered transparent with the aid of resins, so that the internal structure can be examined. Another method of preparation, somewhat less advantageous, is to open the auricles, ventricles, and blood-vessels, then fill them up with cotton, or to leave them unopened, but to fill them with proof spirit, afterwards suspending them in the same medium. The water contained in the heart's tissue is attracted by the spirit; the walls thus become stiffened, and retain their form even after the alcohol has been removed. Preparations of this kind are to be met with in Hunter's museum.

On examining a heart thus prepared, the first observation we make is that the left auricle forms an oblong pouch, having almost a horizontal position, its right extremity encroaching upon the domain of the right auricle, the situation of

which is nearly vertical. At the point where the two pouches meet, the septum of the auricles develops itself with its inferior portion almost lying across the mouth of the vena cava. This is the exact spot which in the fœtus is occupied by the foramen ovale and its border, and the partition itself consists of the thickened valve, by the adhesion of which with the neighbouring parts the foramen ovale was closed up. The upper part of the septum forms the imperfect septum auricularum in the fœtus. If the right auricle be opened, the left being filled up, we discover a protuberance presented by the upper part of the border of the obliterated valve. This, together with the convexity formed above it by the septum, probably constitutes the tubercle mentioned by Lower.

The arrangement of the septum in its different parts has the greatest influence over the functions of the heart under the various circumstances of life. If the body be at rest, the blood flows gently from the lower parts into the right auricle, but if it be pumped up by hard breathing, as in those affected with dyspnœa, the influx becomes far more hurried. It is still more accelerated by an uninterrupted exercise of the muscles of the lower extremities, as the muscles then press on the parietes of the large veins, and thus force the blood onwards towards the auricle, whilst its retrogression is prevented by the valves. The curvature of the septum, the tendency of the circular muscles around the foramen ovale, and the curvatures at the entrance of the venæ cavæ, prevent the blood from penetrating from the inferior into the superior venæ cavæ, or vice versâ. If it were otherwise, apoplexy would easily occur in the former instance, and injurious effects on the liver in the second.

Kgl. Wetensk. Acad. Handlinger. 1835.

PRACTICAL MEDICINE AND THERAPEUTICS.

Remarkable Case of Spontaneous Combustion. By Dr. JOLY.

BERNARD, æt. 73, and his wife, æt. 65, have long indulged to excess in spirit drinking. September 6th, they both became intoxicated, remained alone the whole night, and were found dead on the following morning. Four hours after they were found dead, Dr. Joly and the "Procureur du roi" went to see the bodies. The room which contained them was shut. Several pieces of furniture in it were covered with a grey soot. There was a strong empyreumatic smell, and on the floor, between a table covered with bottles and glasses, which had contained brandy, and the cinders of an extinguished fire, lay the legs of the two corpses and a shapeless carbonaceous mass. Two of the legs, belonging to the same individual, had on stockings of black wool and cloth slippers. One of the stockings only was burned at its upper part. The skin covered by the slippers was but reddened; the tissues beneath, when cut into, presented no peculiar appearance. An inch above the knees, the thighs were reduced to a black, shapeless, carbonaceous mass. There were no traces of the external genitals. Of the pelvis, and the parts contained within its cavity, there remained but the calcined superior edge of the left ilium, and the enlarged left ovary buried in the midst of oily and fetid carbon. There was a separation of the articulation of the lumbar vertebræ; and at this part the body was divided into two, in consequence of having rested upon the other situated beneath it. Two or three vertebræ, which thus became exposed to the air, were consequently calcined and whitened. These were quite distinct from a mass of spongy and shining carbon, corresponding to the thoracic cavity and its contents. The only portion of this which was at all solid was the vertebral column, to which was still attached some blackened fragments of the first ribs of the left side. The calcined cervical vertebræ terminated in the incinerated cranium, which was so extremely friable as almost to fall into dust on the endeavour being made to lift it. The lower jaw alone had preserved more consistence. Beneath the remains of this corpse, and forming an X with it, were those of the second. The left leg, naked and covered with vesicles containing a reddish serum on its anterior surface, was burned to the bone the whole of its length, posteriorly. It was disconnected with

the body. A cat had bitten the muscles of the calf, and torn them to the extent of several inches. A fatty and disagreeable liquid oozed from this laceration. The right leg was burned like the left. Its whole anterior surface was covered with large phlyctenæ, as well as the sole of the foot, although the latter entirely rested upon the ground. About three inches above the knees, the thighs were converted into a heap of black and unctuous carbon. The pelvic region had disappeared. At the part where the former corpse lay across the latter, the clothes were strongly adherent to the remains of the bodies, in consequence of the slowness of the combustion. In the different layers of charcoal which were interposed, it was easy to recognize the character of the garments. The right lung and the liver could be recognized. They had lost about half their size; their surface was hard, varnished, and brittle; when cut, their consistence was that of soft cheese; but the texture of the liver was closer and more homogeneous than that of the lung. The vertebral column and ribs consisted of a more compact carbon than that which was formed by the soft parts. About an inch and a half from the hearth was an entire and sooty head. The prominence of the nose and the orbital cavities were still marked. This bony box was broken by the slightest shock, and in the middle of its cavity, resting on the foramen magnum, was the dried brain, about the size of a hen's egg. Of the superior extremities of these two corpses, a few inches of one calcined humerus, and three united and calcined metacarpal bones, only were found. Allowance being made for those parts which had undergone slight alteration with respect to their weight,—i. e. the legs and feet,—the weight of the cinders of both bodies produced by the combustion was calculated not to exceed four pounds. The time which the combustion may have occupied could not have exceeded fourteen hours. These remains, lying upon a pavement covered by a greasy and stinking liquid, were surrounded by various pieces of furniture, &c. At the feet, the parts most distant from the fire was a table unburnt. The heads lay towards the hearth, in which there was no fire: a fender and andiron had fallen beneath the woman; and between her head and that of her husband was a brand, still burning. On the right was only a wooden shoe; on the left was a chair, one foot, four bars, and the straw cushion, which had been partially burned. There was also a beehive, reduced to a cinder. A few inches above the bodies was a besom made of rush, which was scarcely singed on one side, and some matches, the sulphurous end of which projected beyond a sabot which contained them.

[The circumstances attending these cases of spontaneous combustion agree generally with what has been hitherto observed in such cases. This account differs, however, from others, in two individuals, of different sex, being simultaneously affected; and it adds another fact to the rare occurrence of spontaneous combustion in man. It offers also an example of two individuals placed in such identical physiological conditions, that the combustion affected them both in the same degree and in the same parts.]

Journal des Connaissances Médico-chirurgicales. Septembre, 1836.

Employment of the Root of the Elder in Scrofula and Leucorrhœa.

By M. DELENS.

THESE observations were communicated to the Society of Medicine at Paris, and concern the administration of a remedy much used by the ancients.

M. Delens first used the remedy in the case of a lady of scrofulous constitution, afflicted with a tumour of the jaw. Various remedies were tried without benefit, and at last this medicine was given, not to act upon the tumour, but to produce an effect upon the constitution, which was debilitated: it, however, in a few days caused the absorption of the tumour.

A case of leucorrhœa is related, in which it was equally successful. It has likewise been given in several cases resembling those mentioned, with decided effect. It is given in the form of infusion; from two to four drachms in four cups of water, reduced to three, and taken during the day.

La Lancette Française. Novembre, 1836.

On the Employment of Creosote and Tar-water in Pulmonary Affections.

By M. PETREQUIN, D.M.P.

THE exhibition of these remedies was confined to three sets of cases,—chronic bronchitis, incipient phthisis, and confirmed phthisis; and a certain number of each class were treated with creosote, and others with tar-water, and the comparative results carefully noted.

The usual effects produced were, a sense of heat in the œsophagus, stomach, and intestines, and vomiting. In two cases where diarrhœa existed, it appeared to exert a beneficial effect, by rendering the discharges fewer; and in one case, after each dose, and accompanying the sense of heat in the stomach, there were rapid alterations in the capillary circulation, with a sense of tingling in the limbs. In seven out of the fifteen cases, the cough and expectoration appeared to be lessened; but in two the irritation increased, and the cough became more frequent.

Upon the whole, M. P. has found the effects of creosote more beneficial in incipient than in confirmed phthisis; and in no case has he seen any thing approaching the radical cures announced by some. He concludes that it is only occasionally useful for the purpose of alleviation. He decidedly gives the preference to tar-water as a therapeutical agent. In one case, where the creosote produced great irritation, and rendered the cough worse and accompanied with vomiting, the tar-water had quite a different effect. After ten doses, the cough and dyspnœa became less, expectoration diminished, the pains in the chest were relieved, the nausea and vomiting vanished, and the patient went home well.

The creosote usually facilitated or diminished the expectoration; whereas, the tar-water always did so, without producing any of the unpleasant effects of the former.

The creosote sometimes alleviated the cough, at other times it appeared to exert no influence, and in two cases it rendered it more severe: on the contrary, the tar-water constantly alleviated it in a most striking manner.

The thoracic pains and sense of oppression were frequently diminished by the creosote; but the alleviation with the tar-water was constant.

As regards affections of the chest, tar-water certainly appears to be far superior to creosote; and, in its effects upon other parts of the system, the comparison is equally in its favour. The heat and irritation of the digestive tube, the disgust and vomiting, which were frequent attendants upon the action of creosote, did not occur during the exhibition of tar-water: indeed, it rather appeared to check vomiting.

Tar-water frequently increased the appetite, rendering the digestion more easy: no such effect was noted as regards creosote. Tar-water appeared to exercise no appreciable influence on the urinary secretion.

[One circumstance which strikes us as extraordinary in the above memoir is the smallness of the dose, which, in M. Petrequin's hands, produced nausea, and heat in the pharynx, œsophagus, and stomach. In the fifteen cases given, we find only one in which it reached five drops; whereas, in the remainder, these unpleasant symptoms were produced when the dose was only two drops. Dr. Elliotson states that many patients bear a gradual increase to ten or twenty drops, without unpleasant effects.]

*Gazette Médicale de Paris, Novembre, 1836.**Chronic Fluor Albus, cured by Iodine.* By Dr. MÜLLER.

A YOUNG female had long suffered from leucorrhœa, which had diminished her strength, and had yielded to none of the means commonly employed in this disease; when the ointment of the hydriodate of potass was rubbed, morning and evening, into the internal surface of her thighs. After this inunction had been continued for four weeks, the disease had entirely ceased; and a careful and nutritious diet soon restored the strength.

Wochenschrift für die gesammte Heilkunde, No. 40. 1836.

Clinical Researches concerning the Influence of certain Medicines upon the Functions of the Heart. By M. LOMBARD, of Geneva.

[IN a former Number we communicated some notices of M. Lombard's experiments with certain medicines on the action of the heart. He has undertaken some new researches regarding the therapeutical action of digitalis, assafoetida, camphor, and polygala senega, which we shall now briefly report.]

1. *Assafoetida*. M. L. states this to possess remarkable properties in combating the irregularity of the functions of the heart. Employed *externally*, in the form of plaster, it succeeds in alleviating palpitations which have resisted a great variety of medicines. He has almost constantly obtained some alleviation in a great number of cases. Irregular contractions of the ventricles, occurring in persons affected with disease of the heart, are modified; and it likewise succeeds in those cases which may be considered only nervous. The following is the formula used by him:

Assafoetida,	.	.	.	2 ounces,
Gum. Ammoniac,	.	.	.	1 scruple,
Turpentine,	.	.	.	6 drops,
Yellow wax,	.	.	.	a sufficient quantity.

Employed *internally*, he has found it likewise lessen and render regular the movements of the heart. In very small doses, it lessens the palpitations, and produces a remarkable calm; and he considers it a very valuable remedy in nearly all diseases of this organ.

2. *Camphor*. This medicine, given internally, in variable doses, from three to twelve grains in the day, acts in a special manner upon the heart. Among persons affected with hypertrophy, with dilatation of the cavities, the nervous influence is often insufficient to produce regular and complete contractions, and hence often tumultuous action. This state he has found can be modified by camphor, and he has seen the most tumultuous ventricular contractions become regular and perfectly isochronous after the administration of a few grains. He is not able to decide whether it acts as a stimulant or a sedative.

3. *Digitalis*. M. Lombard believes the want of uniformity in the sedative action of this medicine upon the functions of the heart, depends upon the four following circumstances: 1. The state of the stomach; 2, the mode of life of the patient; 3, the doses given; 4, the mode of administration. Sometimes, owing to an irritable state of the stomach, the exhibition of digitalis induces vomiting; and, if this continues after the cessation of the medicine, we must not have recourse to antiphlogistic measures, but to antispasmodics; such as the subnitrate of bismuth, oxide of zinc, and effervescing draughts. The mode of administering digitalis is one of the most important points in its therapeutical history. The infusion is the preparation which produces most promptly symptoms of saturation. In the form of powder, it rarely produces vomiting, except when the doses are large and frequently repeated. The best medicines for obviating or allaying these symptoms of saturation are calcined magnesia, subnitrate of bismuth, subcarbonate of iron, or oxide of zinc. M. L. considers the subcarbonate of iron as the best, and thinks he can attribute to its use the absence of baneful results among his patients who took digitalis daily for many months.

4. *Polygala Senega*. The therapeutical action of this medicine is little known. M. Lombard considers it one of the most precious which the *materia medica* possesses. Administered in the form of extract or infusion, he has found it lower the circulation, and especially regulate the ventricular contractions. The dose employed varied between twelve and twenty-four grains in the course of the day. The infusion, prepared with one drachm to four ounces of water, has been often administered in the same time.

Bulletin générale de Thérapeutique, Nov. 1836.

Iodine in Mercurial Salivation. By M. KLOSE.

SALIVATION had been produced in two children, during their convalescence, by mercury which had been administered on account of inflammation of the brain. To remedy the salivation, iodine was employed; and, after its first two doses, the peculiar smell of the mouth disappeared, the flow of saliva diminished, the pains became alleviated, and the aspect of the ulcers in the mouth was improved. The children were five and seven years of age. The iodine was discontinued before any of its peculiar symptoms were produced. M. Klose thinks iodine of value in such cases; and, as the remedies with which we are at present acquainted appear to possess but little influence over mercurial salivation, when it is once established, a new remedy which promises fairly is worthy of all acceptance.

Medicinische Zeitung, No. 34. 1836.

On the Diuretic Operation of the Flowers of Statice Armeria. By Dr. EBERS.

DR. EBERS speaks of the flowers of the Statice armeria, popularly termed "Pissblume" in Germany, as an active diuretic. From two drachms to an ounce of the flowers, freshly gathered and quickly dried, should be gently boiled, and the patient allowed to drink of the decoction, *ad libitum*. Some aromatic, as anise or cinnamon, is added to the decoction. The remedy appears to cause the excretion of urine in a direct manner. Dr. Ebers does not pretend to say the kind of dropsy to which it is appropriate, nor the mode of its operation.

Wochenschrift für die gesammte Heilkunde, No. 40. 1836.

Intermittent Epistaxis, cured by Quinine.

A STRONG man, æt. 27, suffered on alternate days from very violent bleeding at the nose, which continued from four to six hours, and could neither be put a stop to, nor alleviated by the common styptics, nor by any of the other means which are usually employed in similar cases. Regarding the periodicity of the occurrence of the bleeding, the treatment was changed, and a large dose of quinine, with diluted sulphuric acid, was administered. During the twenty-one days following, the bleeding recurred but twice, and was then readily stopped. The patient subsequently continued quite well.

Med. Zeitung, No. 33. 1836.

Cure of Hydrops Articuli, on the occurrence of Intermittent Fever.

A MUSKETEER had been affected with dropsy of both knee-joints for a period of five months, and the disease had resisted a variety of treatment, which had been employed for its removal. At the end of this time he became the subject of a violent intermittent fever, a consequence of which was the cure of the effusion into the knee-joint; for, on the day following the appearance of the fever, there was no trace of fluid in either knee-joint.

Medicinische Zeitung, No. 37. 1836.

SURGERY.

On the Treatment of Vesico-Vaginal Fistulæ. By Professor DIEFFENBACH.

AFTER having, in the manner of most writers on this disease, entered into a consideration of the difficulties which attend any attempt at its radical cure, M. Dieffenbach describes the operation which he usually performs in these cases. Before the operation, the rectum is evacuated. The patient is then placed in the same position as for lithotomy, the back being flat, and the head placed upon a small pillow. Five or six assistants are necessary. Dieffenbach first injects the bladder with cold water. When the fistulous opening is small, the escape of the

water indicates its situation, and, when the edges of the fistula are cut, washes away the blood from them. The divided speculum is introduced, and then the vagina is caught hold of in the vicinity of the fistulous opening, with a pair of hooked forceps (*hakenzange*). The speculum being now withdrawn, the vagina is pulled downwards, the border of the fistula seized with a pair of simple forceps, perforated with a knife, and considerable strips of it are cut away. When the opening is very large, its vaginal borders are cut away some lines distant from its vesical border, in order to make a large wounded surface. This is not possible in small fistulæ. In the latter case, Dieffenbach removes a triangular portion, the middle of which is the fistulous opening; the apex of the triangle is directed towards the bladder; and thus he forms a large wounded surface. The sutures, consisting of strong and numerous threads, are applied whilst the vagina is drawn out, by means of small curved stitching needles. If the parts are hard and unyielding, the sutures are best introduced, according to the structure and seat of the fistula, by straight needles, three-quarters of an inch in length, or by small and very strongly curved needles, introduced by means of a needle-holder. The threads are easily tied by the fingers, and may either be cut short off, or, being allowed to hang from the vagina, may be attached by adhesive plaster to the labia. The patient is then put to bed, an elastic catheter is allowed to remain in the bladder, and an œsophagus tube in the vagina. Through each tube, cold water is injected every half-hour, which escapes again. The water is used less as an antiphlogistic, than as a diluent of the urine: diminishing its injurious action upon the wound in the bladder, and cleansing the mucus from the vagina. Both tubes should lead into a urinal. After four, five, or six days, the sutures are taken away. The speculum of Kluge is the best instrument to employ, and the threads should be seized with forceps and cut with scissors. If any suture has cut through, or if the whole operation has failed, the borders of the wound may be smeared with tincture of cantharides; but if, as most probably will be the case, this is not followed by success, the operation must be repeated. The general treatment in strong and young people, must be the most antiphlogistic. Should an acute inflammation of the bladder occur, it is generally fatal; but this may be easily prevented. Dieffenbach treats the patient, after this operation, as he does cases of penetrating wounds of the abdomen or thorax. If cystitis occur, leeches should be abundantly applied to the vagina, after which the bleeding is very considerable, if lukewarm water is injected; and the pains in the bladder frequently cease in a short time. The only food allowed is mucilaginous drink; the only medicine, an emulsion of castor oil with cherry-laurel water. If the stools become very frequent, the decoction of *althæa* with cherry-laurel water, or the emulsion of almonds with the same water, are administered.

Medicinische Zeitung, No. 36. 1836.

On Pessaries, and the Radical Cure of Prolapsus Vaginæ et Uteri.

By Professor DIEFFENBACH.

THIS distinguished surgeon has long discontinued the use of pessaries in his own practice. To them he ascribes the occurrence of many diseases of the vagina and uterus, as well as of the neighbouring parts; and although he admits that there may be cases in which their use is likely to be beneficial, he considers that such cases are comparatively very rare. He was led to adopt the mode of practice which he here recommends, by seeing the case of a woman, the subject of prolapsus of the vagina and uterus, in whom parts of the vagina sloughed, during its state of prolapse: the uterus and vagina were replaced whilst granulation was going on, and the result was a complete cure of the disease. The first case with which Dieffenbach met, after this, on which he was determined to imitate the natural process, was that of a woman with prolapsus of the uterus, which could be easily replaced, but as easily prolapsed, when it was not kept in by a sponge.

The operation was thus performed. The bladder and rectum were emptied; the uterus was made to prolapse, and a portion of about the size and shape of a hen's egg was removed from the left side of the vagina, the sharper end of which was directed

backwards, the opposite end forwards, and came in contact with the nymphæ. The fold was then seized with a pair of forceps, the uterus being previously pressed somewhat backwards to take off the tension of the vagina, and then dissected out with a slightly curved scalpel. The same process was repeated on the right side. The wound was cleansed, and at its hinder part two sutures were applied, the uterus was next replaced, and three other sutures were applied within the vagina. Had all the sutures been completed before the attempt was made to replace the uterus, it is possible that its reduction could not have been effected. Some little irritation followed, which ceased, however, on the removal of two of the sutures from either side. On the sixth day, all the sutures had separated.

Since the time at which Dieffenbach performed this operation, he has repeated it very often. He now employs a smaller number of sutures; usually only two, and never more than three. In many cases he uses no sutures at all, as the borders of the wound in the vagina mostly lie close in contact after the uterus has been replaced. The suture is required where there is great relaxation, and a want of irritability of the vaginal membrane; on the other hand, when the individual is robust and the vagina thick, it is better to dispense with sutures. When the surface of the vagina is mortified, it is necessary to fill it with charpie. Tepid mucilaginous injections should be used for some days, and after these, cold water. If, when cicatrization is going on, there is no evident narrowing of the vagina, a compress of charpie smeared with a resinous ointment, and the repeated application of the lapis infernalis, should be employed.

Dieffenbach has often removed the fold from the vagina after having replaced the uterus, by drawing a portion of the former outwards, and cutting it off by a knife with a sawing motion. This is a far easier mode of operating, but great care is necessary not to injure the bladder or rectum, which may happen if the fold of vagina, when tightly stretched by the forceps, should be cut off too near its base. Sutures are not employed in this case.

The position of the patient in the operation above described, should be the same as that for lithotomy. The state and relations of the rectum and bladder with the vagina and uterus should be ascertained, previous to the operation; of the former, by means of the finger, of the latter, by Desault's silver catheter. The catheter sometimes draws off a quantity of retained urine; the evacuation of the bladder being often rendered very difficult by the prolapse of the uterus.

Medicinishe Zeitung, No. 31. 1836.

Treatment of some Forms of acute Ophthalmia by the Application of successive Blisters upon the Cutaneous Surface of the Eyelids. By A. VELPEAU.

THE sudden disappearance, on the occurrence of erysipelas of the face, of some forms of ophthalmia, which had long resisted the usual means of treatment, first led M. Velpeau to the use of blisters in ophthalmia, applied as near as possible to the inflamed part, and therefore upon the eyelids. The advantages resulting from their use, were found to be very considerable, and to be most evident, in those cases where the inflamed vessels were not the same as those the action of which was increased by the use of the blisters; thus, e.g. inflammation of the cornea, the vessels of which are derived from the ciliary branches of the ophthalmic artery, is more benefited by blisters than inflammation of the internal surface of the eyelids, which are supplied by the palpebral branches, and which are directly acted upon by the new cause of irritation. M. Velpeau therefore thinks that blisters applied upon the eyelids will be of the most service in those cases where the inflammation is nourished by the muscular branches of the ophthalmic artery, the ciliary and central of the retina. M. Velpeau has now employed blisters in these cases more than fifty times. In no case have they increased the evil which they were intended to remedy, they have not increased the pain, they leave no indelible marks upon the face, and the only evil effect which has been observed to follow them, is an occasional sty.

The immediate advantages following blisters in such cases, are: diminution of headache, if it previously existed; diminution of lachrymation and intolerance of

light, of redness and thickness of the ocular conjunctiva; cleansing of ulcers; lessening of the cloudiness and suffusion of the cornea and aqueous tumor, of effusions of pus or lymph, or at least a discontinuance of their formation, together with improvement in the general state of the patient.

But in many cases, there is a class of secondary effects, which do not clearly manifest themselves before the blistered surface begins to heal. Of these, the most remarkable is the diminution of the cloudiness of the transparent parts of the eye. If lymph be deposited at the bottom of an ulcer; in the substance of the cornea; under the form of hypopium; in layers or masses, it is equally under the power of the blister, disappears as it were by enchantment; so that the clarification of the cornea and aqueous tumour appears to be the special object of the blister. Another effect, almost as constant but not so rapid as the preceding, is the extinction of inflammation in the conjunctiva, then in the cornea. If there is chemosis, this gradually diminishes. Should ulcers be formed on the cornea, when the inflammation is calmed, there will require other remedies to hasten their cicatrization. Blisters applied in front of the orbit are not beneficial in all forms of ophthalmia. They are of especial advantage in favouring the absorption of matters which tend to obscure the clearness of the transparent media of the eye; and their use is indicated in acute inflammations, foreign to the eyelids; in inflammations of the various tunics of the eye, and of the parts contained within the orbits. In ophthalmies which are seated in the fibro-serous tissue of the eye, i. e. in rheumatic ophthalmies, the effects of blisters are more complete than in any other cases, whatever may be the intensity of the inflammation. No topical application is so efficacious. The disease is, as it were, extinguished beneath the blister, and ordinarily disappears entirely by the use of one or two blisters in the space of from eight to fifteen days. The catarrho-rheumatic ophthalmia is still more under the influence of the blisters, applied upon the eyelids. M. Velpeau concludes his paper by hinting at the possible advantage to be derived from blisters in the earliest period of cataract; he grounds the idea of their possible utility, on the influence which they appear to possess of restoring those parts of the eye which have become cloudy, to their natural transparency; but the notion is supported by no facts.

Journal des Connaissances Médico-Chirurgicales. Septembre, 1836.

Treatment of Club-Foot with Plaster of Paris. By Professor DIEFFENBACH.

DR. DIEFFENBACH has employed the following treatment of club-foot, during the last six years, and its advantages are farther commended by the success of other surgeons who have employed it. The apparatus of which he makes use, consists of an oaken box, the sides and ends of which may be taken off: internally it is very smooth. After having oiled the inside of the box, together with the leg and foot, the latter are held within the box in their normal position, whilst the gypsum properly prepared is poured into it; the limb, as it were, swimming in the preparation. As the gypsum begins to harden, the hand must be gradually withdrawn; still, however, holding the extremity of the foot until it is quite consolidated. The toes and metatarsus project beyond the gypsum.

This treatment has been borne very well during a continuance of three or four weeks, and in one case only was it necessary to discontinue it, from the pain which it occasioned. The loss of power which the healthy limb suffers during the necessary confinement, Dr. Dieffenbach considers as an advantage, as both extremities thus acquire a more nearly corresponding strength. The application may be renewed by taking away with a chisel the upper surface of the gypsum; when the limb may be lifted out, washed, oiled, and replaced; the gypsum which was cut away, being substituted by another portion.

After a month's continuance of this treatment, and when the limb has acquired a better position, the following application is substituted. Broad strips of adhesive plaster are so applied as to keep the limb in a proper position, and the foot and leg are carefully bandaged with a roller. A very diluted mixture of gypsum is then spread over the bandage with a large brush, and this having dried, the same is

repeated three or four times. On the following day the whole is covered with a varnish, consisting of rosin and spirit of wine (one drachm of the former to one ounce of the latter). Such a bandage is capable of being worn for months without occasioning the least inconvenience. But should pain be complained of from any cause, e.g. an excoriation, a portion of the dressing may be cut away at the part, and when the sore is healed, a reapplication of adhesive plaster and gypsum to the part is all that is necessary.

If after a time the limb acquires its entirely normal form, in children who are not very young, the following application is employed, which allows them to walk about, and effects a complete cure on another principle. The apparatus consists of (1), a sole made of felt; 2, a thin wooden splint, one inch and a half in breadth, and reaching from the knee to the sole of the foot; 3, strips of adhesive plaster; 4, a roller of the same breadth, and five yards in length; 5, a solution of rosin in spirit. The felt-sole, spread with sticking-plaster, is applied to the foot. A strip of plaster is then carried from the back of the foot, over its inner border, obliquely across the sole, thence outwards and upwards in front of the ankle, to terminate spirally in the upper part of the calf. Two other strips are similarly applied; the one before, the other behind the first. The whole is then enveloped by some spiral turns of the bandage. A long piece of adhesive plaster, one inch and a half in breadth, is folded so as to adhere, except in the middle, where it forms a noose. It is then applied to the inner side of the leg and sole, to which it adheres, whilst the noose extends to the outer border of the foot. Into this noose is inserted the lower end of the splint, in which two notches are made to receive the plaster. The splint is then pressed and fastened to the whole limb by more strips of adhesive plaster. From the foot to the knee a roller is now to be most carefully applied, to be sewn together at each turn, and finally to be covered with the solution of rosin.

The peculiarity of this dressing, is, not simply to maintain the limb in an unchanged position, but to bend the foot in an opposite direction. For as the individual places his foot upon the ground, the splint which projects one-third or one-half of an inch beyond it, first touches the ground, the foot is thus somewhat bent outwards. Walking in the room is therefore of advantage, as it remarkably contributes to restoration. If the patient goes out, he should wear a broad soft laced boot, in the thin sole of which an aperture should be left, through which the splint may project.

Wochenschrift für die Gesamnte Heilkunde. No. 27. 1836.

On the Permanent Immoveable Bandage. By DR. SÜETIN.

DR. SÜETIN has employed for some time, a bandage constructed upon the same principles as those which Larrey and subsequently Dieffenbach recommended in certain cases of fracture, deformity, &c.: but he has introduced a modification which, from considerable experience, he is disposed to regard as an improvement; and he conceives that its application will be attended with benefit, in a much greater number of cases, than those in which it has hitherto been employed.

The chief advantages attending the use of the permanent immoveable bandage, and which contrast it with those commonly employed, are, that when applied to a limb, it fits itself to all the inequalities of its surface, constitutes a compact covering, no one part of which can be moved without the simultaneous motion of the whole. Its action is not upon particular parts of the limb, but upon its whole circumference, and it is thus a splint in every direction. When applied, it fulfils a threefold indication: it maintains permanent coaptation; opposes constantly the action of forces which tend to disturb the relations of the reduced fracture; and effects all this, by a uniform, regular, and methodic compression. These are advantages rarely to be obtained by the ordinary means, and they are such as render the bandage a valuable acquisition in many other cases, than in those of fractured limbs. And even in cases of compound fracture, where great suppuration is to be anticipated, the application of this bandage has appeared very much to limit the process of suppuration. In this observation Dr. Suetin agrees perfectly with Larrey.

Inflamed articulations, where rest is desired; diseased joints, where the object is to effect ankylosis in a favorable position; club-foot and analogous deformities of the limbs, and other obvious cases, indicate the application of this permanent bandage.

The material employed by Dr. Suetin, recommends itself by its cheapness, and by the facility with which it may at all times be obtained. The essential parts of the apparatus are a roller or many-tailed bandage, pasteboard splints, and a solution of starch in water of a thick mucilaginous consistence.

The general mode of its application, varying in some degree according to the parts to which it is applied, is as follows: Enclose the limb in the roller or bandage, and then smear its whole surface with the solution of starch. Over this again pass another roller and let an assistant spread the starch over each turn as it is made. When this has been done, apply the pasteboard splints, which must be cut and moistened so as accurately to correspond to the limb. Dr. Suetin recommends that the pasteboard should be torn instead of cut, as it has not then a sharp and irritating edge. When the pasteboard is also smeared with starch, pass the last bandage over the whole. Of course, in the application of this treatment to fractures of different kinds, the particular circumstances of such fractures, and the general principles of treatment will require certain modifications, which it is needless to specify.

Bulletin Médical Belge, No. 11. Novembre, 1836.

Local Treatment of certain Forms of Venereal Disease, followed in the Berlin Charité Hospital. By Dr. STRUNZ.

Orchitis. The compression of the testicle by strips of adhesive plaster, of a quality as little irritating as possible, generally constitutes the whole of the treatment of hernia humoralis occurring in connexion with gonorrhœa or gleet. The surprisingly favorable operation of this mode of treatment, has been shown in all the cases to which it has been applied. In general, let the inflammation be of a high or low degree, the testicle is enveloped in plaster so soon as the patient is placed under treatment, and the application is usually well borne, even when it causes at first an increase of pain. This pain ceases soon after the testicle is enveloped, and when the patient lies in bed with the organ maintained by a small cushion in an elevated position, he will be quite at ease in a few hours, even when the inflammation is most active. As the testicle diminishes in size, and the plaster becomes loose, it will require to be renewed, and to be repeated until the disease is quite terminated. The advantage of this treatment does not consist simply in the rapid and easy stop which is thus put to the inflammation itself, but in the prevention of that induration which is so often among its most irremediable effects. In the rarest forms of orchitis, where the inflammation is very intense, and is connected with extreme sensibility, the use of compressing plasters is preceded for a day or two by emollient poultices.

Venereal Warts. M. Strunz states that it is useless to attempt to eradicate these warts, until they have finished their growth and have become *ripe*. The sign of their having attained this state, consists in a whitish or greyish colour of the points of the warts, such as they would present if lightly touched with blue stone. If it is endeavoured to destroy them before they have attained this state, the effort will almost certainly be fruitless; as they almost always reappear. At the period of their ripening, M. Strunz believes it to be immaterial what means are employed for their destruction, whether cutting or caustic; and he recommends nothing new. He regards as of great importance the observation of Fricke, that small excrescences are often so concealed in the mucous crypts at the entrance of the vagina, as to be overlooked in a cursory examination: and that thus, females are regarded as healthy who are not so. The perfect cure of these must be effected by completely destroying the little crypts, by means of some potential cautery.

Medicinische Zeitung, Nos. 33, 34. 1836.

Cure, after Excision of a Portion of Intestine. By Professor DIEFFENBACH.

A STRONG man, aged fifty, had suffered for fourteen days from strangulated inguinal hernia of the right side. Several ineffectual attempts at replacement had been made. At this time, Dieffenbach saw the patient. In addition to the usual symptoms, there was reason to suspect sloughing of the protruded parts, and escape of faecal matters into the hernial sac. An incision of about three inches in length was made into the swelling; when there escaped an ichorous fluid, with faecal matter, and portions of mortified intestine. The diseased intestine was drawn outwards, and three inches of it, which were partially mortified, softened and thickened, together with a corresponding portion of mesentery, were cut away. A small artery of the mesentery required to be tied, and the ligature was cut close to the knot. During this process, the ends of the intestine were held by assistants. The angular incision in the mesentery was first united by ligature; and then the extremities of the divided intestine, by means of separate threads, so inserted as to bring the peritoneal coats alone into connexion. The mucous membrane was not perforated. The parts were then carefully replaced. Shortly afterwards, castor oil was administered, and repeated with some croton oil, until very large evacuations were produced. These were followed by great improvement in all the symptoms. Mild aperients and the antiphlogistic regimen were the only means required during the process of cure, which was complete in the fourth week after the operation.

The individual returned to his usual employment, which was laborious, and some weeks subsequently, after very hard work and the use of very indigestible food, he was suddenly seized with all the symptoms of intussusception, with which he died. Two diseased conditions were found within the abdomen. In the left lumbar region, a portion of small intestine had coiled around, strangulated and become adherent to, another portion of the same gut; above this, the ileum and jejunum were much inflamed, adherent and covered with flakes of lymph, and contained a large quantity of excrementitious fluid, which was also found in the duodenum and stomach. The ileum, particularly near the strangulated part, was very much distended by this fluid. Beneath the strangulation, the intestine was empty and contracted, passing in this state to the right inguinal aperture, at which many convolutions were closely adherent. Whilst dividing the false membrane which united the intestine to the inner parietes of the abdomen at this part, a drop of pus was found surrounding a ligature. Here was the part of intestine which had been operated on. It was closely adherent to the abdominal parietes and the contiguous convolutions of intestine. On cutting it open, the extremities which had been joined together by ligatures, were found to be connected by a smooth cicatrix, interrupted only by the situations of the ligatures, still suppurating. The ligatures were adherent, and their extremities lay in the cavity of the intestine. The portion of intestine beyond, about a span in length, terminated in the caecum. Nothing worthy of notice was found in the other organs.

Wochenschrift für die gesammte Heilkunde. No. 26. 1836.

Report of the Cases treated at the Ophthalmic Hospital of the Imperial High-School at Vienna, during the Session 1833-4. By Professor ROSAS.

THE number of patients treated in this institution during the academical year 1833-4 was 1,132; of which, 120 were in-patients, and 1012 out-patients. Of the former, 72 were males, 48 females; 4 were under 10 years of age, 29 under 20, 35 under 30, 19 under 40, 6 under 50, 10 under 60, 13 under 70, 4 under 80. With respect to diseases, the numbers were as follows:—Phlegmonoid inflammation of the eyelids, 1; Erysipelatous ditto, 1; Inflammation of the meibomian glands, 1; Lagophthalmos, 1; Cancer of the eyelid, 1; Various forms of conjunctivitis, 25; Chronic ophthalmoblenorrhœa, 2; Trachoma (granular conjunctiva), 2; pterygium, 1; Encanthis, 1; Ulceration of the angle of the eye, 1; Fistula lachrymalis, 1; Inflammation of the globe of the eye from various causes, 20; Amaurotic weakness of sight, 3; Gutta serena, 3; Opacities of the cornea, 3; Ulceration of the cornea, 5;

Cicatrix of the cornea with closure of the pupil, 1; Adhesion of the iris to the cornea (synechia anterior), 3; Hydrops oculi, 1; Effusion of blood into the tissues of the eye, 1; Prolapsus of the iris, 2; Contraction of the pupil from effused lymph, 1; Cataract, 29; Staphyloma, 7; Medullary fungus of the eye, 1; Melanosis of ditto, 2.

The cases of phlegmonoid and erysipelatous inflammation of the eyelids did not present any thing worthy of notice. The same thing may be observed of the cases of inflammation of the ciliary glands and lagophthalmos.

The cancer of the eyelids occurred in a locksmith, aged thirty-three, who had repeatedly suffered from affections of the eyes. In his thirtieth year, he had a violent inflammation of the eyelids, terminating in a tumour of the external angle of the left eye, which gradually increased in size and hardness, assumed a dark red colour, became extremely painful, and finally exhibited the characters of a cancerous ulcer. At the period of his admission, it was three-quarters of an inch in length, and an inch in breadth. An issue was made in the left arm, and kept open, an appropriate diet prescribed, and the patient was ordered to take the extract. conii, in doses which were gradually increased to the amount of half a drachm in the day. The ulcer was covered with pulvis Cosmii (Frere Cômes' paste); and, when the slough dropped off, the surface was dressed with Hellmund's salve, to which a little pulv. cosmii was added. This application was continued until the hard cancerous base of the ulcer was destroyed, and then it was dressed with a pledget dipped in Sydenham's liquid laudanum. In a few weeks the cicatrization was complete, and there was no return of the disease.

With respect to the cases of conjunctivitis, the furuncular form occurred in 2; the catarrhal in 7, (in 4 as lippitudo, in 2 as blepharo-blenorrhœa, in 1 as ophthalmoblenorrhœa); the catarrho-rheumatic in 7; the scrofulous in 8; and the gonorrhœal in 1. The treatment of these cases was conducted in the usual way, and proved completely successful, except in two cases of catarrhal inflammation in which some derangement of vision remained, and in a third case where the sight had been wholly impaired by an opacity of the cornea. The case of gonorrhœal ophthalmia also terminated unfavorably. The usual antiphlogistic and alterative means were promptly applied, and the discharge from the urethra, which had become suppressed on the occurrence of the conjunctivitis, was restored by inoculating with matter taken from the diseased eye; but the symptoms had gone too far, and the case terminated in supuration of the cornea.

The cases of trachoma were of catarrho-rheumatic origin, affected both eyes, and had been of several months' standing, when the patients were admitted. They were treated with leeches, scarifications, the lapis divinus of Beer, white precipitate, and other alterative and astringent remedies, with considerable benefit; but the patients left the hospital before the cure was complete.

The case of fistula lachrymalis arose from a neglected lippitudo. The duct was dilated by means of small catgut bougies, and the patient was obliged to wear a hollow lead style for several months.

Among the cases of inflammation of the globe of the eye were observed,—of rheumatic ophthalmia, 12, (5 as scleritis, 1 as keratitis, 3 as internal ophthalmia, 2 as general acute ophthalmia, and 1 as chronic ophthalmia); scrofulous ophthalmia, 3, (1 as keratitis, 2 as internal ophthalmia); syphilitic iritis, 1; traumatic ophthalmia, 1; panophthalmitis, 3. One of the cases of rheumatic ophthalmia terminated in opacity of the retina and mydriasis. The case of traumatic ophthalmia, and one of the cases of panophthalmitis, terminated in atrophy of the globe of the eye. The rest were cured or relieved.

One of the cases of amaurotic weakness of sight occurred in a peasant girl of plethoric habit, who laboured under amenorrhœa. The pupil was small, the iris sluggish, vision myopic and indistinct. Bleeding from the feet, leeches to the mammæ and perineum, cold affusion, warm pediluvia, and the use of aloetic medicines, restored the menstrual secretion, and removed every trace of amaurosis. In the second case, the disease was of a rheumatic and congestive nature. The pupil was natural, the iris sluggish, the patient complained of pain in the eye and orbit, intolerance of

light, and obscure vision. He was treated with cream of tartar, and afterwards with small doses of tartar emetic and blisters to the nucha. A saturated solution of extract. hyoscyami (gr. j. ad gr. viij. aq. distill.) was dropped into the eye daily. He recovered completely. The third case was of long standing, and resisted every form of treatment.

One of the cases of gutta serena occurred in a cabinet-maker, aged thirty. The right eye, which was first attacked, was quite blind; the left still retained some sensibility to light. The patient had been subjected to intermittent fever, and since his twenty-fifth year, had been frequently annoyed with a defluxion from the nostrils and wandering rheumatic pains. The motions of the eye were unsteady, the cornea less convex than usual, the iris sluggish, the pupil small, and forming a vertical oblong. He was directed to take the tartar emetic mixture, and use the decoct. althæ, with manna, as a sternutatory. In ten days he could discern large objects with the left eye, and could distinguish the light with the right. The vomiting, however, produced by the tartar emetic was so annoying to him, that he would not submit to this mode of cure any longer, and left the hospital. The second case was one of complete amaurosis of both eyes. The patient was a Jew of weak habit, who laboured under great irritability of the nervous system, with involuntary emission of semen, and was supposed to be addicted to masturbation. Various remedies were tried for the space of six months, but without any effect. The third case was also treated without success. The patient had imperfect amaurosis of the right, and perfect amaurosis of the left eye, with adherent cataract. The iris was pale and sluggish, and the pupil contracted in both eyes; in the left, the crystalline lens was opaque, and adhered to the iris.

In a case of partial chalk-like opacity of the cornea of the right eye, and purulent opacity of the cornea of the left, with adhesion to the iris, *iridodialysis* was performed in the first, and diuresis in the latter case, with the most favorable results. In a case of partial chalk-like opacity of the cornea, caused by organized lymph, in which the power of vision was limited to mere sensibility to light, the operation for *iridectomedialysis* was performed without success; the new pupil closed again. In a third case, with opacity from organized lymph, and a varicose state of the ciliary bodies of both eyes, in a scrofulous girl, aged eighteen, the operation was equally unsuccessful.

Of the five cases of ulceration of the cornea, three were the result of traumatic keratitis, one of rheumatic inflammation of the cornea, and one of small-pox. As long as any irritation remained, a few drops of the saturated solution of extract of hyosciamus were dropped into the eye once or twice daily, and a weak collyrium of corrosive sublimate with tincture of opium, was subsequently employed.

In a case of complete opacity of the cornea after small-pox, with atrophy of the left eye, *kerectomy* was performed on the right eye, which was still sensible to light, but without advantage.

The same operation was performed, and with a similar result, in a case of adhesion of the iris to the cornea, arising from ophthalmo-blenorrhœa. A case of contraction of the pupil from adhesion of the iris to the cornea, was successfully treated by performing irido-dialysis, after Langenbeck's method. The result was equally favorable in a similar case treated in the same way.

The case of hydrops oculi, which arose from ophthalmia of a rheumatic and scrofulous character, was considerably improved by repeatedly puncturing the cornea, and the use of derivatives and other appropriate means.

The case of effusion of blood into the tissues of the eye, which was produced by a blow of a hammer, yielded completely to vigorous antiphlogistic treatment.

The two cases of prolapsus of the iris arose from perforating ulcers of the cornea. By the use of proper antiphlogistic means, and the constant application of the saturated solution of extract of hyosciamus, they were both cured, leaving behind only a slight anterior synechia, which caused very little disturbance of vision.

In a case of contraction of the pupil from bands of lymph, with subacute iritis, mercurialization, derivatives, and the use of the saturated solution of extract of hyosciamus, produced the most remarkable improvement; the patient, who at the period

of his admission could merely distinguish day from night, was capable of discerning very small objects when he left the hospital.

Of 29 individuals who laboured under cataract, 14 were males, 15 females. Of this number, 1 was under 10, 3 under 20, 1 under 30, 1 under 40, 7 under 60, 12 under 70, and 4 under 80 years. With respect to the origin of the disease, 2 were congenital, 4 traumatic, 5 from latent internal ophthalmia, 1 from habits of intoxication, 2 from abdominal derangement, 1 from gout, 1 from excessive weeping, 13 from old age or early decrepitude. Thirty-four cataracts were operated on; 13 by extraction, all or most of which were hard cataracts. Discission through the cornea was performed in two cases of soft capsular cataract in grown persons; discission through the sclerotic in 8 cases, (chiefly in young subjects,) of which 4 were membranous, 2 hard, and 2 soft. Couching through the cornea was performed in 3 cases, 1 complicated with gout, 2 with abdominal derangement. Couching through the sclerotic in 8 cases, most of which were hard, lenticular, or membranous cataracts. In all cases, where any complication existed likely to exercise any influence on the results of the operation, the utmost care was taken to palliate or remove it before operation. The accidents consequent on the different modes of operation were, after extraction, two cases of mild acute, and one of chronic iritis; after discission through the cornea, a slight kerato-iritis; after discission through the sclerotic, a mild sclero-choroiditis; after depression through the cornea, a slight keratitis. The results of extraction were favorable in twelve cases. Discission through cornea produced good vision in two cases, and through the sclerotic in eight cases. Depression through the sclerotic produced the same favorable result; in one case of depression through the cornea, the result was marred by a chronic iritis, in the other two it was successful.

The staphyloma was partial in two cases, and complete in six. The usual operation was performed in all with favorable consequences. A case of incipient medullary sarcoma was treated with calomel, the external use of the Naples ointment, and topical bleedings, and terminated in atrophy of the eye. A melanotic degeneration of the right eye, to which warm fomentations of cicuta, mallows, and hyosciamus were applied as a preliminary measure, with the view of relieving pain, gradually yielded, and terminated in atrophy of the eyeball. In another case of the same kind, extirpation of the eye was performed with success. After the operation, the patient used solvent and alterative remedies, and wore an issue in the left arm.

The number of external patients treated at this institution was 1012; of which, 567 were males, and 445 females. Of these were treated, in October, 87; November, 69; December, 52; January, 72; February, 72; March, 92; April, 123; May, 149; June, 116; July, 83; August, 45; September, 52. In 282, the right eye was affected; in 280, the left; in 450, both eyes.

Medicinische Jahrbücher des Öst. St., xx. Band, i. Stuck. 1836.

Treatment of Artificial Anus. By M. BLANDIN.

AN artificial anus, in this case, was the consequence of a strangulated inguinal hernia, in which six inches of intestine had become gangrenous. The two extremities of the intestine were parallel to one another; the fecal matters escaping from the superior extremity, which was very tumid externally. The finger could be readily introduced into it. The inferior extremity was more contracted, and its diameter daily diminished. Having tried various means to reduce the tumor of the upper extremity of the intestine, M. Blandin comprehended it in a ligature, and it separated as a slough on the fourth day afterwards. He then constructed an enterotome formed of two branches, each of which terminated by an oval blade, from eighteen to twenty lines in length, and from six to eight lines in breadth; the internal surface being so undulated that each elevation corresponded to a depression on the opposite blade. The two blades were then introduced, one into the upper, the other into the lower extremity of the intestine; several incisions having been first made upon the circumference of the latter. The blades were inserted to a depth of four or five inches, and compressed by means of a screw. Abstinence

and rest were enjoined. No evil consequences ensued. The enterotome separated on the fifth day; its two blades being covered by the two extremities of the intestine, the gangrene of which it had caused. On the same evening, the patient passed solid feces, per anum, for the first time during an entire month. Gas and a yellowish green fluid alone escaped from the external fistula; and notwithstanding the fact that the patient overindulged in food, the cure was complete in two months after the employment of the instrument.

Archives Générales de Médecine, tome xii. Novembre, 1836.

Treatment of Chronic Catarrh of the Bladder, by Injections.

By D. M. DEVERGIE, Sen.

DR. DEVERGIE has recorded eight cases of chronic catarrh, some of long standing, which were cured by injecting balsam of copaiba, into the bladder. Some of these cases had succeeded to an acute cystitis: in others the disease had gradually manifested itself and maintained throughout its chronic character. If stricture of the urethra exist, this requires to be remedied before employing injections. A moderate quantity of an emollient fluid must first be injected, to ascertain the capacity of the bladder, but not in sufficient quantity to irritate it. General means must be resorted to, to calm the inflammation and local pain, the general erethism, &c. Narcotics must next be added to the emollient injections; and these may be repeated three or four times daily. When the state of irritation of the bladder and neighbouring parts is allayed, the copaiba should be injected. A dose of uniform strength is not suited to every case. A drachm of balsam of copaiba to an ounce of barley-water is strong enough to commence with; the quantity of balsam may be increased according to its effects. The combination of narcotics with copaiba renders the latter less exciting. The balsamic injections may be allowed to remain in the bladder for a period of from ten to twenty minutes. The quantity of copaiba is to be gradually augmented; and it should not be injected more frequently than once daily, nor intermitted more than two days. The injection is to be continued until the muco-purulent secretion has quite ceased. It is necessary to guard against the occurrence of inflammation of the mucous membrane of the alimentary canal, and under such a circumstance to suspend the use of the balsamic injections.

Gazette Médicale de Paris. Octobre, 1836.

Dissection of a Sclerotic Staphyloma. By Dr. JAEGER, of Erlangen.

A MAN, aged forty-eight, had for several years been amaurotic in one eye; the cornea was dull, and the upper eyelid depressed. On examining the eye after death, the following was observed:—On the upper segment of the bulb, three lines from the edge of the cornea, was a sclerotic staphyloma, of a globular form, depressed in the middle by the rectus superior muscle, so as to be divided into two portions. It measured one inch long, half an inch broad, and the height of both prominences was two and a half lines. The dark blue colour of the swelling was marked with white striæ and points. Held against the light, it lost its blue colour, and became transparent like the cornea. Dr. Jäger pronounced the tumour to be a collection of water between the cornea and choroid, in consequence of which the sclerotica had become thinned and of a bluish colour. On laying open the eye, the affected part of the sclerotica was found to be quite thin and transparent, and presented only here and there anything of its usual fibrous character. A quantity of limpid fluid was present between the sclerotica and the very thin choroid. The retina was thinner than natural. The vitreous body was small, but not otherwise abnormal.

Ammon's Zeitschrift für die Ophthalmologie, V. Bandes, 2 und 3 Heft. 1836.

Case of Ligature of the Common Carotid. By DR. BEDOR,
Senior Surgeon of the Hôtel-Dieu, of Troyes.

[It would be difficult to find a more exquisite example of the overlaying of a few important facts by a multiplicity of trifling details and an infinity of words, than this case affords. We shall give in a few lines what the author has contrived to spread over twelve large quarto columns.]

A man, aged twenty, was stabbed in a fray, with a sort of workman's punch, small, and shaped somewhat like a foil. He received two wounds, one on the breast and another just below the ear, in front of the mastoid process; and this last, the only one of consequence, had evidently divided some large branch of the external carotid artery, as was manifest from the great and repeated hæmorrhage, which nothing could repress, although attempts to do so were persevered in for sixteen days. The operation was performed in the usual manner, great care being taken not to denude the vessel of its cellular envelope to a greater extent than was necessary to tie as low down as possible, and that nothing was included in the single ligature but the artery itself. Immediately after the operation, great exhaustion and a state of stupor supervened, followed by extreme paleness, almost imperceptible pulse, and slight delirium. He, however, had a good night, and, although the local wounds and the general symptoms were troublesome and somewhat threatening, the intellectual functions being occasionally, but slightly, disturbed, the progress to recovery was regular. The ligature shifted, showing separation, on the eighth day after the operation, but did not come away entirely until the fourteenth. A month after this date, he left the hospital perfectly well.

La Presse Medicale. Paris, Fevrier 4, 1337.

MIDWIFERY.

Case of Extra-Uterine Pregnancy. By WILLIAM BELL, M.D.

On the evening of the 11th of June, I was requested to visit Dorothy Morris, an apprentice on Golden-Grove Estate, forty years of age, and the mother of five children. For a considerable period (nearly four years, according to her own statement), she had occasionally experienced slight abdominal uneasiness, with the feeling of a hard swelling in the right hypochondrium; but the pain being inconsiderable and not constant, she continued at work until within the last three months, nor had she found it necessary to make any application for advice before the present time. On being questioned, she stated that the catamenia, with one exception, had not been interrupted, and that the appetite and general health continued unimpaired. When I saw her, there was a dark-coloured fætid mass projecting through an opening in the abdominal parietes, about two inches under, and a little to the right side of the umbilicus, which was found to be the remains, or rather the whole, of a fœtal cranium, surrounded by a plentiful discharge of very offensive putrid matter. As the expulsive efforts appeared ineffectual, it was removed, and observed to be an entire fœtus, of the size apparently of five months. No remnants of the placenta or cord could be discovered; but the midwife remarked that something like the former had been discharged previous to my visit. The abscess was carefully washed with tepid water; a compress of lint applied and secured by a bandage. Quiet, and the supine posture were recommended. As the patient had no febrile symptoms (pulse eighty), and complained of no uneasiness, medicine was not considered necessary. The fœtus was washed with rum, and its different members were readily distinguished; but it would amount to conjecture only, were I, from that circumstance, to draw any inference as regards the length of time it had remained in the abdomen. The statement of the mother on this point, I am inclined, however, to believe, is nearly correct. The result of the case may be given in a few words:—The patient suffered from no symptom of fever, inflammation, or any other complaint during the whole course of the cure of the abscess.

Her appetite could scarcely be satisfied, and, on the 14th of July, she was walking in her garden, the opening nearly closed, with a slight gleet discharge: the poultice, which had been the only application, was now laid aside, and a more stimulating treatment adopted. She is now perfectly recovered, without having experienced an unfavorable symptom, and without having required a dose of medicine. There is one circumstance deserving of notice, which is the absence of all constitutional disorder, the patient having suffered from no symptom requiring the aid of medicine. In similar accidents, the greater proportion of which (so far as recorded) have occurred to European practitioners, such an immunity from suffering I believe to have been but rarely met with; and it affords a favorable opportunity of hazarding an opinion, which, from other causes, I am inclined to entertain, that the African race in general seem to suffer less constitutionally from serious accidents and operations than their otherwise more favoured and civilized brethren.

Jamaica Physical Journal, December, 1835.

On the Reposition of the Umbilical Cord. By Dr. MICHAELIS.

THIS is a continuation of the paper we noticed in our second Number, (April, 1836,) p. 588: it contains seven additional cases of great interest, which show the importance of the plan recommended by Dr. M. For an explanation of the conditions requisite to ensure successful reposition of the cord, and its being retained above the presenting part, we must refer to the above-mentioned notice. We will now select two or three of these cases, in further illustration of the subject.

CASE. Dr. Michaelis had turned the child in a former labour, on account of faulty position (arm or shoulder), on the 11th of January, 1835. He found the membranes ruptured, the abdomen of a very irregular configuration, and the whole left arm, together with a large coil of the slowly pulsating funis, in the vagina. The head could be reached at the brim of the pelvis on the left side. He returned the arm without difficulty, but could not succeed in replacing the funis, as the uterus evinced no disposition to contract round the head, which now presented to the pelvis more favorably. Not choosing to give up the hopes of succeeding, he determined to wait for greater uterine activity. In this, however, he was disappointed, for a knee presented near to the head; and, finding there was no chance of success in replacing the funis with so inactive a uterus, he brought down the knee, and quickly delivered the woman of a living child. The funis was actually fifty-three inches long, and twice round the neck.

Although his attempts to return the funis were unsuccessful, the case shows how necessary it is that there should be a certain degree of uterine contraction round the head of the child, to ensure the cord being retained above it.

CASE. A primipara had had pains since the morning. Dr. Michaelis examined at noon. The abdomen was strongly inclined to the left side; a narrow bladder of membranes had descended into the vagina through the os uteri, which was nearly fully dilated. The cord was felt beating, with strong and rapid pulsations, within the membranes; and the head was reached with difficulty above the brim. As the patient was very sensitive during examination, Dr. M. expected he should find it necessary to use the catheter in replacing the cord; but, on introducing half of his hand, to ascertain the position of the head, he found he could do it without. As the cord hung down from the left side, he easily returned it in this direction, and the annular contraction of the uterus followed immediately, although not very completely, from the quantity of liquor amnii. He therefore ruptured the membranes, and allowed the liquor amnii to escape slowly. The posterior fontanelle now descended at the left side of the brim, but the cord was still close by the occiput, although above the ring of uterine contraction. In sixteen hours after the reposition of the cord, a healthy living child was born. The cord was tight round the umbilicus, and measured twenty-seven inches.

CASE. It was the patient's second labour, and commenced in the morning. At noon, the os uteri was dilated; and, at half-past four, a considerable quantity of liquor amnii escaped. A coil of the cord, pulsating strongly, and about four inches

long, hung down into the vagina on the right side. The abdomen was slightly pendulous, and the os uteri inclined to the right side. Dr. Michaelis introduced his left hand, and, gathering the coil upon the points of his fingers, carried it upwards along the hollow of the sacrum. The circular contraction of the inferior segment of the uterus had already taken place. He allowed the liquor amnii to flow off entirely, and supported the abdomen: the head immediately descended upon the os uteri, and entered the pelvis. In three hours after, the child was born alive: it weighed seven and a half pounds; the cord was tight round its neck.

Neue Zeitschrift für Geburtskunde, Vol. iv. 1836.

Case of Delivery after Episioraphy. By DR. PLATT, of Hamburg.

A. D. B., aged thirty-six, had borne a child eighteen years previously without any remarkable difficulty, and afterwards continued to enjoy good health for several years. In 1831, she became affected with "a bearing down," which in the course of half a year increased to a complete prolapsus of the uterus and vagina. She went into the general Hospital at Hamburg, where she was treated with pessaries of various shapes and sizes, but without advantage; the pessaries were either not retained *in situ*, or they produced ulcerations and excoriating discharges. Episioraphy was therefore performed by Dr. Fricke, and with success. By the cohesion of the labia, a fleshy bridge was formed, more than an inch in breadth, and sufficiently strong to prevent any further prolapse of the uterus. The patient married in 1834, and soon after became pregnant. Feeling a considerable degree of anxiety about her condition, she again applied to Dr. Fricke, who recommended her to the care of Dr. Platt. At the end of the eighth month of pregnancy, the state of the genitals were found as follows: The labia majora formed by their union an oval flattened protuberance of considerable extent, with two nearly circular openings, of which the lower was two inches, and the upper an inch and a half in diameter; the intervening fleshy bridge measured fully an inch and a quarter in breadth, and was about one-eighth of an inch in thickness. A confused mass, consisting of the prolapsed walls of the vagina, filled up both openings, and had been forced down by the pressure of the superincumbent parts, so that the lower opening, originally very small, but on which the pressure was chiefly directed, had become the larger of the two. In the other opening the nympha could be felt. By pressing up the external parts with a considerable degree of force, the head of the child could be felt at the entrance of the pelvis. The general state of the patient was favorable, except that she felt considerable anxiety about the issue of her labour.

On the evening of the 15th of May labour came on. Next day the os uteri was completely dilated, the waters came away, and the head could be felt lying in the first position. Some hours afterwards, in consequence of the labour becoming tedious, the forceps was applied through the posterior opening, and Dr. Platt, having brought down the head as far as the bridge, awaited the result. The pains now became very strong, and the edges of the opening were stretched to the utmost extent. To avoid a laceration of the parts, the amount of which it would be impossible to determine, Dr. Fricke made an incision with a button-pointed bistoury on each side of the opening to the depth of two lines, and subsequently another more anteriorly on the right side; whereupon the head, and a few moments afterwards the rest of the body, was born. The placenta came away soon after, and the rest of her confinement went on quite regularly. In the course of a few days, the surfaces of the incisions exhibiting a languid appearance, were touched occasionally with a mixture of balsam of Peru and tincture of myrrh. The patient was not able to leave her bed for several weeks, and subsequently used for a long time compresses dipped in a decoction of oak-bark, and applied with a T bandage. Under this plan of treatment the parts returned to their former state, and the patient still enjoys all the advantages derived from the original operation.

On the Use of the Plug in Cases of Placenta Prævia.

By Dr. ALBERT, of Wiesenthaid.

[THREE cases are reported where the tampon was used to afford the os uteri time for sufficient dilatation. We are quite ready to allow Wigand the due merit of having written some admirable observations on this subject; still, however, we must not forget the original merit of Leroux. The value of the plug in profuse hemorrhage from placenta prævia, where the os uteri is rigid and but little dilated, has not been sufficiently estimated. Where it is made of proper materials, it may remain in the vagina, until, by the passage of the head into this canal, expulsive pains are induced, and further hemorrhage prevented.]

CASE. A robust, plethoric woman, mother of seven children, was attacked with slight hemorrhages from the vagina, which recurred every three or four days, from the latter end of the eighth to the middle of the tenth month of her pregnancy, when the discharge became much more profuse. The placenta was found centrally situated upon the os uteri, which was dilated to about the size of a shilling. Although she was not exhausted, yet, as her condition was not free from danger, Dr. A. prepared a plug of fine linen, which was oiled, and passed up the vagina against the os uteri; the vagina was also stuffed with charpie, and the whole secured by a proper bandage. The patient was desired to remain quiet in the supine posture, with her knees together, and she was left for some hours under the charge of a midwife, with proper instructions. After a considerable period, Dr. A. was again called; expulsive pains having come on, during which the plug produced much straining and tension. On removing it, the liquor amnii escaped, and a small quantity of blood in clots. The right edge of the placenta was detached, and hung down against the left side of the vagina. The os uteri was fully dilated, and the largest circumference of the head had passed through it. The child was expelled in about half an hour; the placenta followed immediately, and nothing occurred to disturb her getting up. The child was alive and active.

[We do not approve of the plug used by Dr. A., although sanctioned by Mr. Burns's authority. It is far inferior to the sponge plug, as recommended by Dr. Dewees. This is introduced and removed with far greater ease, and, being much softer, is retained in the vagina without inconvenience by the patient. Our objections to the linen plugs are illustrated in Dr. A.'s next case, where it required to be altered twice before it could be retained by the patient.]

Neue Zeitschrift für Geburtskunde, Vol. iv. No. 1 and 2. 1836.

On the Means of inducing Uterine Contraction. By Dr. SCHNEIDER, of Fulda.

A REMEDY, which is generally sure to produce contraction in cases of obstinate uterine atony, is placing the new-born child to its mother's breast. We obtain this sanative effect by means of the well-known sympathy between the breast and uterus. The uterus contracts, and the flooding stops.

[This brief extract is taken from a paper entitled "Contributions from the Practice of an old Obstetrician;" and we notice it because we think the fact, the truth of which we have had repeated opportunities of proving, is not so generally known as it ought to be.]

Neue Zeitschrift für Geburtskunde, Vol. iv. 1836.

Contributions to the Pathology of Puerperal Fever. By Dr. A. BARTELS.

THESE observations are taken from cases seen in the Lying-in Hospital of Vienna. Dr. B. notices the fact of puerperal ulcers being contagious, and that they may easily be communicated to healthy patients, by using the same sponge, &c. This fact we have pointed out in our Review of Mr. Moore's work on Puerperal Fever, p. 488, and shown that, in some aggravated cases, the contagion may be communicated even to females *not* in the puerperal state. Dr. B. has quoted an exceedingly interesting observation by Professor Schönlein, who considers that the contagion of puerperal fever possesses the greatest analogy to that of hospital

gangrene. He grounds this opinion on the remarkable similarity which he has observed between ulcers in the puerperal state and hospital gangrene. According to some investigations which he made some years ago at Würzburg, it would appear that the one could be developed from the other affection. When we compare the observations of Dr. John Thomson with these views,—viz. that hospital gangrene sometimes appears in the form of small pustules, without previous breach of surface,—their importance will be better seen.

Neue Zeitschrift für Geburtskunde, Vol. iv. 1836.

MEDICAL STATISTICS.

On the Prevalence of Consumption in the United States of America. By AMARIAH BRIGHAM, M.D.

THE great mortality from this disease in the United States, and the general inutility of remedial efforts, ought to excite public attention, and awaken enquiry as to methods of prevention. From an examination of the bills of mortality within my reach, and information derived from medical correspondents in various sections of the Union, I am obliged to conclude that there are at least fifty thousand deaths by consumption, every year, in this country.

Allowing the same mortality from this disease to the entire population of the United States that there has been from it for several years past in the cities of Portsmouth, Boston, New York, Philadelphia, Baltimore, Washington, Charleston, and Natchez, and the number of deaths for the whole country would considerably exceed fifty thousand.

In this communication, I purpose to exhibit, by the statement of a few facts, the alarming prevalence of this disease in the United States, with the hope of awakening attention to some measures calculated to diminish it.

The following table exhibits for a series of years the number of deaths by consumption, and also the whole number of deaths from all diseases, in some of the largest cities in the country:

Years.	New York.		Philadelphia.		Boston.		Baltimore.		Washington.		Charleston.		Portsmouth.	
	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.	Whole No. of Deaths.	By Consumption.
1824	4341	736	4399	576	1297	242	1468	188	....	....	1059	101	118	22
1825	5018	843	3812	519	1450	220	1545	295	....	....	840	152	109	28
1826	4973	820	4151	587	1254	231	1922	306	283	27	764	124	171	27
1827	5181	829	3945	523	1022	178	1498	267	251	27	....	....	132	23
1828	5181	906	4292	581	1233	217	1702	295	254	37	....	....	121	24
1829	5094	880	4293	638	1221	203	1849	267	304	31	762	412	121	28
1830	5537	974	4250	636	1125	193	2086	332	339	46	....	....	178	24
	35,325	5,988	29,142	4,060	8,602	1,484	12,070	19,50	1,431	168	3,425	489	950	176

From this table it appears, that the proportion of deaths by consumption to the whole of the deaths by all diseases is, at

Portsmouth, N. H.,	as 1 in 5,39	Philadelphia,	as 1 in 7,17
Boston,	" 1 " 5,79	Baltimore,	" 1 " 6,18
New York,	" 1 " 5,89	Washington,	" 1 " 8,51
		Charleston, S. C.,	as 1 in 7,08

It also appears that the mortality from consumption is the greatest in the most northern cities. Thus it is greater at Portsmouth than at Boston, and it is greater

at Portland than at Portsmouth. The whole number of deaths from all diseases during the last year at Portland was 305, of which number, eighty-four were by consumption, being in proportion to all the deaths as one in 3,53. The disease is more frequent in Boston than in New York, and more so in New York than in the cities farther south. It will be noticed, however, that the deaths by this disease are less in Philadelphia than in Charleston and Baltimore. This may be owing partly to the inland situation of Philadelphia; as it is well established, that this disease is more prevalent in the cities on the Atlantic, than in those of the interior; and partly to the fact, that many individuals from the north, affected with disease of the lungs, visit the cities of the south, particularly Charleston, for the sake of a warm climate, but die there of consumption. This prevents our ascertaining from bills of mortality all the deaths that occur from consumption among the inhabitants of the northern cities, and improperly swells the list of reported deaths in some of the southern cities.

But though there is less of this disease in southern and warm climates than in northern and cold ones, yet it prevails to a great extent even in warm countries—in Italy, in the West Indies, and in the southern states of this country. As I have said, it prevails more in towns on the Atlantic than in those of the interior, though the difference is not, I apprehend, so great as many suppose. According to the statements of some writers, there is but little of this disease in the Valley of the Mississippi, and in the western parts of this country. Mr. Flint, in his "History and Geography of the Mississippi Valley," remarks that "Pulmonary consumption is a very uncommon disease, not often witnessed in the northern region of the western country. Fifty persons fall victims to this terrible destroyer in the Atlantic country to one that dies of it here." We can hardly believe this to be correct. It is difficult, however, to obtain much accurate information on this subject, as but few of the towns in the western country have published bills of mortality; but from information derived from various sources deemed authentic, it appears that although this disease is less frequent at the west than in the east, yet it prevails even in the former to a great extent.

The whole number of deaths at Natchez for thirteen years—from 1822 to 1835—was 1904, and the deaths by consumption during the same time 100. This at first appears to be but a slight mortality from consumption. But it should be recollected that the total mortality is very great—equal to that of the most sickly cities of Europe; and that 100 deaths by consumption in thirteen years, for the population of Natchez, is nearly equal to the mortality from this disease in Philadelphia—though it is in proportion to the whole number of deaths but as one in nineteen, while in Philadelphia the proportion is as one in seven.

It is however true, that many predisposed to consumption, and while in the Atlantic country, are affected with lung complaints, regain their health on removing to the west. Several such instances have fallen within my own observation. But this may as properly be attributed to the remedial effect of a long journey and mental excitement, as to the climate of the western country. Long journeys, with pleasurable mental excitement, are among the most useful remedies in the early stages of this disease.

It is generally believed that consumption is much more frequent and fatal in cities than in the country. This is probably true in Europe, where the inhabitants of the large cities are far less healthy than those in the country. But from all the facts I can obtain on this subject in the United States, it appears there is not great, though there is some difference. It is difficult to ascertain the exact amount of mortality in most of the small towns of this country, as but few of them have any bills of mortality. In the town of Woodbury, in the western part of Connecticut, containing 2050 inhabitants, the whole number of deaths during the last eleven years is 347, of which number fifty-five, or about one-sixth of the whole, were by consumption. I have accurate accounts from above twenty small towns in the interior of Connecticut and the western part of Massachusetts, some but for one and others for three and four years, which show that from one-sixth to one-eighth of all the deaths are by this disease. By the bill of mortality for Rutland (East Parish,) Vermont, containing about thirteen hundred inhabitants, it appears that from 1797

to 1816 the whole number of deaths was four hundred and ten, of which number forty-nine, or one-eighth of the whole were by consumption. In the country there is, I apprehend, less predisposition to this disease than in cities, though exciting causes are in the former more numerous and powerful.

Has this disease increased in the United States within the last half century?—From my own observation, and from statements furnished me by aged medical men, I think it has considerably increased in country towns. In some of the cities it appears to have increased no faster than the population, while in others the increase of the disease has been much the greatest. This is particularly true of the city of New York, where in 1830 the deaths by consumption were 974, and in 1835 amounted to 1437.

Formerly, as we are informed by Dr. Colden, there was but little of the disease in New York. Speaking of the city about ninety years since, he observes: "The air of the country being always clear, we have but few consumptions, or diseases of the lungs. Persons inclined to be consumptive in England, are often perfectly cured here by our fine air." Similar observations respecting the rarity of consumptive diseases in this country, and the beneficial effects of our climate upon those who came here from Europe with impaired health, are found in the letters and writings of the first settlers of New England. Probably some recoveries were attributed to the influence of the climate that should have been credited to other causes. That the disease, however, was less common half a century since than at the present time, is evident from the observations of aged medical men. Dr. Holyoke of Salem, in a letter to Professor Wigglesworth, in 1790, observes: "This disease has of late become much more frequent, and makes up now, I believe, a tenth or perhaps a sixth of our whole bill of mortality." Consumption has, however, always prevailed here. It was the most fatal disease among the Indians, previous to the settlement of this country by the Europeans, and since then is said to have become still more destructive. The celebrated Indian chief, Red Jacket, has lost nine of his family by consumption.

The Knickerbocker New York Monthly Magazine, July 1836.

HYGIENE.

Case of Poisoning by Arsenic mixed with Beans.

By MM. BARRUEL AND CHEVALLIER.

THE following Report is valuable from the clear and methodical manner in which it is arranged.

"We, the undersigned, have been requested to analyze some French-beans, (haricots,) contained in a small flask, in order to discover whether they contain any poisonous substances, and particularly arsenic, and in what manner these substances had penetrated the beans, whether by boiling or otherwise; also to say whether two garments belonging to C. contain any portions of arsenic:—We have examined with the greatest care every part of these clothes, to discover whether there was arsenic either upon them, or in their folds, but without success. We next examined the pockets, and turned them inside out on a sheet of white paper: on examining the seams, we only found some bits of dry bread mixed with some foreign substances, and some down, but nothing had the appearance of arsenic or any other poison. Not trusting however to the appearance, we introduced the substances into a test-tube with distilled water, and boiled them for a considerable time. The liquid thus obtained had neither smell, taste, nor colour; treated by various tests, and particularly by sulphuretted hydrogen, it did not become yellow, nor furnish a precipitate. With iodine, it turned to a blue colour, indicating the presence of fecula arising from the crumbs of bread.

The beans contained in the flask were spread on white paper: we found, 1st, there were twelve in number; 2d, they were mixed with other substances, and particularly with seeds of flax of a brown colour; thirteen of these were found. There

were also a small stone, and a considerable quantity of a black substance which gave the beans a disagreeable appearance, which would have disgusted those to whom they might have been given. The little stone was broken, submitted to the action of heat on burning charcoal until it became red, but it was not altered, and gave out no smell. Six and a half of the beans were introduced into a small glass vessel, and submitted during three-quarters of an hour to the action of distilled water, assisted by heat. A part of the decoction thus obtained was filtered, and treated with sulphuretted hydrogen in the presence of the said C. Immediately the liquid became yellow, and presented all the characters of a solution of arsenious acid, treated with sulphuretted hydrogen. The same beans were several times boiled in successive portions of distilled water, in order to separate all the arsenious acid, and each decoction filtered. The filtration was very slow; it took twelve hours, and the residue was preserved. Wishing to discover if the arsenious acid had penetrated into the interior of the beans, the epidermis of five and a half was most carefully removed with a penknife; they were then introduced into the glass vessel with distilled water, and boiled. On treating the decoction with sulphuretted hydrogen, the fluid became immediately of a yellow colour, as in the former instance. These beans were boiled in successive portions of water; the decoctions were slowly filtered and the residue preserved, together with that previously obtained. The epidermis that had been removed was also boiled and filtered; the fluid was mixed with that obtained from the beans, and the residue with the two other quantities.

The experiments having proved that the beans from which the epidermis was taken contained as much arsenious acid as the others, he thought it advisable to mix together all the liquids, in order to determine the quantity of arsenious acid contained in the twelve beans. Those portions which had been already tested with sulphuretted hydrogen being mixed with the rest, a stream of sulphuretted hydrogen was passed through the liquid in order to precipitate the arsenic as a sulphuret. The liquid precipitate was poured in small quantities at a time on a very small filter, in order that the sulphuret of arsenic should not be dispersed over a large surface: this process was tedious, lasting three days, owing to the viscosity of the fluid from the fecula it contained. The sulphuret, having been collected on a small filter, was washed with distilled water, and the liquid put aside for examination. As it would have been impossible to detach the sulphuret from the filter by mechanical means, it was treated with liquor ammoniæ, so that the filter, when washed and dried, was completely colourless, proving that all was dissolved. The ammoniacal solution was then evaporated until dry, by a very gentle heat, in a porcelain capsule. As fast as the ammonia evaporated, zones of a yellow colour were seen adhering to the sides of the capsule. The residuum, which was of a yellow colour, was dissolved in a quantity of a solution of caustic potash sufficient to detach it completely from the sides of the capsule to which it strongly adhered: this solution was evaporated in a watch-glass after having been mixed with a certain quantity of black flax, and, when sufficiently dried, the watch-glass was broken, and all was introduced into an apparatus, in which it was subjected to distillation. The sulphuret of arsenic being decomposed in this operation, the metallic arsenic was condensed, and weighed one centigramme, which is equal to thirteen milligrammes of arsenious acid.

As we were also required to ascertain if the beans contained any other poisonous substance, the liquors from which the sulphuret of arsenic had been obtained by filtration were evaporated in a porcelain capsule by means of a gentle heat, to the consistence of extract. This extract produced slight acid reaction with litmus paper: it had neither a bitter nor an acid taste: we triturated it during two hours with successive quantities of alcohol at 36°: the alcohol became of a slightly yellow colour, and when evaporated to dryness it left a hardly appreciable residuum of a yellow colour and slightly salt taste; when treated with concentrated nitric acid, it changed to no colour indicating the presence of a vegetable poison. This negative result was foreseen, as the alcoholic extract had no other taste than that of common salt. That part of the extract insoluble in alcohol was treated with water, which

almost wholly dissolved it, except some flakes of vegetable matter. The aqueous solution, when filtered, was not changed by the addition of hydrosulphate of ammonia; the tincture of iodine gave a blue precipitate from the fecula of the beans.

The solid residuum formed, 1, of the beans treated with their epidermis, 2, of the beans without their epidermis, 3, of the epidermis which had been removed, was introduced into a flask and soaked for twenty-four hours in water saturated with sulphuretted hydrogen. This residuum did not change colour, indicating that it no longer contained arsenious acid; and also that no metallic oxides capable of being coloured by sulphuretted hydrogen were present. The residuum separated from the fluid was treated several times with boiling alcohol. The alcoholic solutions, evaporated to dryness, left a certain quantity of fatty matter in which no trace of an organic poison could be detected. Finally, the residuum of the alcoholic solution was again dried, then carbonized and incinerated in a new porcelain crucible; the result was a large cinder, in which the presence of carbonate and phosphate of lime, silica, and a small quantity of oxide of iron, without any other mineral, was demonstrated. From these facts it is proved,

1. That the beans we examined contained arsenious acid (white arsenic).
2. That the arsenious acid appeared to have penetrated the beans by ebullition, the acid having been recognized in the beans deprived of their epidermis.
3. That the proportion of the poison was thirteen milligrammes to twelve beans.
4. That the beans contained no other poison.
5. That the clothes and pockets contained no poison.

Annales d'Hygiène publique et de Médecine Légale, Avril, 1836.

ANIMAL CHEMISTRY.

On the Distinctive Characters of Pus, and the Means of recognizing it when mixed with other Fluids, and particularly with the Blood. By Dr. A. DONNÉ.

THIS subject is of especial interest at present, on account of attention being again awakened to the reabsorption of pus, and to the mixture of this fluid with the blood, supposed to occur both in phlebitis and metastatic suppurations consequent on traumatic lesions, and in severe internal diseases. Dance, in his excellent memoir on Uterine Phlebitis, says, that "if we reflect on the analogy of the severe symptoms to those produced by the infection of the fluids by miasms, we shall conclude that, if the transport and mixture of pus with the blood during phlebitis are not actually demonstrated, (for direct inspection is often insufficient, and chemical analysis is not of great utility in this enquiry,) yet they are highly probable." In stating the evidence here as merely probable, Dance was right; as in many cases it is impossible to prove the fact, and observers differ in opinion as to the causes of the symptoms. The same may be said of abscesses following wounds, where the alteration of the blood is often admitted from analogy only. In such cases, any method of positively ascertaining the presence of pus in the blood would be highly useful. In the majority of cases where pus has been found mixed with blood, in severe internal diseases, there were centres of suppuration either in the veins or in the parenchymatous and vascular organs, as the liver and lungs. In some fevers true metastatic abscesses have been found, where pus seems to have been deposited without any inflammatory action. M. Piorry inclines towards the opinion that, in these cases, the inflammation of the blood may give rise to the formation of pus in it; but it has not been actually demonstrated that in these diseases there is a mixture of pus with the blood: we do not at present possess any means of proving the presence of pus when it has lost its common physical characters by its mixture with blood.

The first point to determine is, whether pus may be considered as a uniform and identical fluid in all cases; or, at least, whether it always possesses certain essential and characteristic marks, whatever may be its difference of aspect. M. Donné

believes that it does; so does M. Gendrin: an opposite opinion is given by M. Andral, but he insists particularly on the differences in its general appearances. In admitting, with M. Gendrin, that the source of pus is in the blood, that the globules of pus are nothing more than transformed globules of blood, it is not difficult to believe it to be always identical, notwithstanding its varieties: its origin being the same in all cases, it can only differ in its accessory properties, and not in its intimate nature. Whatever kind of pus is examined, it possesses the following properties:

1. Treated with strong liquid ammonia, it is changed into a very tenacious transparent jelly, as has been remarked by many anatomists. This is easily tried in a watch-glass.

2. Examined in the microscope, it appears like a liquid in which a multitude of globular bodies swim, all apparently of the same size, and double that of the globules of blood. The globules of pus are not less than a hundredth of a millimètre in diameter, and the greater number exceed this; whilst the globules of human blood are from 120th to 150th of a millimètre. The appearance of the globules of pus is regular and uniform: they are not lenticular, like those of the blood, but spherical and as if wrinkled: by putrefaction they dissolve, but this requires eight or ten days. Treated by strong liquid ammonia, the globules of pus *do not dissolve*, and are not changed when seen by the microscope. This character is essential.

The property which pus possesses of being changed by ammonia into a tenacious jelly, has not been sufficiently estimated as a test for distinguishing it from all the other animal fluids. Thus, serum of the blood, mucus of the saliva, bile, urine, albumen dissolved in water, when treated with ammonia, do not exhibit the same appearance. A very small quantity of pus, when mixed with a little strong ammonia in a watch-glass, and stirred, gives rise instantaneously, or after a few minutes, to a glairy, thready matter, very similar in appearance to some kinds of expectoration, or to the albumen of an egg. Serum and urine, on the contrary, retain their limpidity; bile loses its viscosity when treated with ammonia.

Mucus is distinguished from pus in the following way:—The expectoration is put in a test-tube with some water, with which it is to be shaken up strongly; and, as M. Gendrin observes, “of all the analyses of pus, the most important, and the one which merits most confidence, is that which consists in treating it with water: the pus precipitates by the cold water, and the yellow pulverulent substance has all the physical characters of pus.” But this test may be improved upon by pouring some of the sediment into a watch-glass, and adding the ammonia: if it is pus, the matter is changed into a jelly, and forms a solid mass. If, on the other hand, the expectoration only contains mucus, the liquid remains thready, and is not converted into a glairy and tenacious mass. Semen, to a certain point, may be confounded with pus; for ammonia renders it rather viscid and streaky, but not to the same extent as pus; and, if serum is a little diluted with water or serum, this effect is not produced. But in all cases the microscope renders the distinction easy, as the spermatric animalcules are of a form so characteristic that they cannot be mistaken when once seen. The following case occurred recently:—M. Briquet sent to M. Donné some milky urine from the bladder of a man who died of an encephaloid cancer of the stomach, which had implicated a portion of the bladder: the patient during life had experienced difficulty in micturition. On examining the fluid by the microscope, it was found to contain a large quantity of dead spermatric animalcules. On treating it with ammonia, it deposited a white powdery matter, like semen mixed with water, but neither became thick nor viscid.

If pure milk is treated with ammonia, it acquires no consistence; it only becomes viscid and stringy under certain circumstances; but the milky globules undergo no alteration from the ammonia, and this is a good manner of distinguishing a mixture of milk with blood or serum,—the ammonia instantly dissolving all the globules of blood, and leaving the globules of milk entire. That secretion from the mammæ on the first days after childbirth (called Colostrum,) has a great analogy with pus in the change it undergoes with ammonia: like pus, it becomes a

viscid and tenacious mass, which will not break if allowed to fall from one watch-glass into another.

Ammonia acts differently on different parts of the blood: it produces no appreciable effect on the serum, but, if the serum contains a small proportion of pus, it becomes a gelatinous mass; and pus is the only substance capable of producing this effect. This, however, only applies to the serum when separated: when the blood is homogeneous, and no coagulum formed, ammonia acts on it much the same as on pus, forming a viscid jelly, like currant jelly; and it is impossible thus to distinguish blood mixed with pus from pure blood. Its application is therefore confined, as it is not applicable to blood taken from the dead body, where the separation of the solid from the fluid parts of the blood takes place very incompletely: ammonia can consequently only be employed as a test to distinguish pus from other fluids, and not from fluid blood. This is to be done by the microscope.

When recently-drawn blood is examined by the microscope, only globules are seen of a certain well-known form, varying in size with the nature of the animals: those of the human blood vary from 120th to 150th of a millimetre in diameter. Pus is also composed of globules, but their form is so different from those of the blood that it is impossible to confound them. In the first place, the globules of pus are larger than those of the blood; they are hardly ever less than the hundredth of a millimetre in diameter, and generally they occupy a division and a half of a micrometer divided into hundredths of millimetres. Besides this, they differ in form and aspect: the globules of pus have no central nucleus; instead of being bounded by an even and regular edge, they are broken and slightly cut; and in their centre there are small lines crossing one another, and forming a kind of network; they are not flattened, and when, by inclining the object-glass, they are made to circulate, they always appear like spheres. Some of these distinctions are worth considering. Thus, the central nucleus is only seen in fresh blood; in blood obtained from dead bodies at the usual time of examination, it cannot be seen, or, rather, it alone is seen as the coloured envelope of the globule is dissolved. The same may be said of the lenticular form of the globules of blood; for, after some little time, they become spherical. The peculiar appearance of pus, and the greater number of its globules, are the other characteristics which would be sufficient in the greater number of cases, if it did not happen that the most pure and recent blood did not sometimes contain a certain number of globules greater than others, with broken edges, without a central nucleus, composed of irregularly intersecting lines; in fact, very like the globules of pus, but less opaque. These kind of globules are always found in blood beginning to be decomposed, and in the blood taken from dead bodies. M. Donné is aware of only one method of deciding this difficulty, which may be called chemico-microscopic, and is founded on the action of ammonia, which dissolves the globules of blood and leaves untouched those of pus: this can only be seen by the microscope. J. Müller remarked, in the *Annals of Physics and Chemistry of Berlin*, published in 1832, that "a solution of caustic potash not only removes the coating of colouring matter of the globules of blood, but entirely dissolves their nuclei; and that caustic ammonia acts in a similar way, but with more rapidity." After many trials of this kind of analysis, M. Donné considers the following to be the best mode of operating.

To discover any alteration in the blood, it is at first necessary to examine it with the microscope: for this purpose a drop of blood is to be taken up by means of a glass rod, placed between two very clean slips of glass, and examined with a power which magnifies from two to three hundred times. If there is nothing unusual in the globules, the blood is as pure as we have any means of discovering: this experiment should be repeated several times, by taking specimens from different points of the mass of blood which is to be examined. On the contrary, if other globules are to be seen, the ammonia must be used to determine whether they are globules of pus or partially decomposed globules of blood. If they are only modified globules of blood, the contact of ammonia causes them to disappear instantaneously, so that no appearance of globules can be discovered by the microscope, and nothing else is seen in the liquid placed between the two slips of glass but particles having

no particular form, probably consisting of fibrine. If an appreciable quantity of pus is mixed with the blood, there will be no difficulty in distinguishing it with the microscope, as there will not only be some few globules, but many together, forming little compact masses in the midst of the globules of blood; but this alone should not be depended on. A drop of blood is to be placed on a slip of glass, and a very small drop of strong liquid ammonia is to be mixed with it, by making the fluid flow on the glass in different directions; and upon this another slip of glass is to be put: on examining it with the microscope, if there were globules of pus they will remain perfectly distinct, and those of the blood will either be completely dissolved, or a few may escape the action of the ammonia. In the latter case, they will be so pale as to be readily distinguished from the globules of pus: if a long time elapses after the mixture with the ammonia, the pus itself will be found to be dissolved.

The strongest objection to this is, that, if pus cannot by such means be found in the blood, it does not prove that it is not there; for the pus may be in too small a quantity to be readily found, or by accident might not have been placed on the field of the microscope. It is possible also that pus may exist without globules. Finally, we do not know all the changes which take place after death; so that the analysis will be more sure when made on blood collected during life. If, notwithstanding, these experiments will not prove the existence of pus, they will render it very probable.

M. Donné began his experiments by injecting pus into the veins of dogs, from which he took a small quantity of blood at different intervals: in two instances he discovered the pus again, and during many days; but as these experiments were inconvenient and difficult, he collected a little blood as it flowed from a vein in a tube containing a little pus, and shook them up together; the coagulum formed exactly as if the blood was pure, but the serum was slightly bloody: with this mixture he performed the greater number of his experiments. When coagulation had taken place, he could find no globules of pus in the serum, but, on dividing the coagulum, and expressing on a slip of glass a little of the blood it contained, the microscope enabled him to distinguish the globules of pus from those of the blood; and, on adding a drop of ammonia, the former were unaffected, and the latter dissolved. He made several experiments on blood taken from patients where purulent reabsorption was suspected, and says he might cite several where he believed he met with pus mixed with blood. He mentions one instance in which M. Brinet sent him some violet-coloured fluid blood, without saying where it came from, and in which he detected by the previous tests globules of pus. The blood was taken from a person who died from the reabsorption of pus, the consequence of a wound: some of the veins were found to contain pus. But multiplied observations are necessary.

[We have translated this memoir in order that it may attract the attention of medical observers to the microscopic investigations of morbid fluids, and may lead them to try the accuracy of the proposed tests; objects modestly professed by the author. We would say, as a rule, that, unless such statements as are here brought forward are confirmed by more than one investigator, the belief of them should be held very loosely.]

Archiv. Gén. de Méd. Août, 1836.

FORENSIC MEDICINE.

Case of Wounds produced by Sulphuric Acid. Feigned Insanity.

Reported by M. BOPP, Advocate in Darmstadt.

THIS case is related in detached depositions, sometimes by the same, and sometimes by different witnesses. The following is a concise outline of the details.

The prosecutrix, a poor woman, stated that on the evening preceding the assault, the prisoner, a female entirely unknown to her, came to her house and solicited shelter for a short period. This the prosecutrix granted, and according

to her custom, she went to bed about twelve o'clock, leaving the stranger sitting in the room. She awoke early in the morning and attended to her child, a little girl about a year and a quarter old, who slept with her. She then saw the prisoner still sitting in the room, in the same place,—a circumstance which excited her suspicion. However, she soon fell asleep again, and some time afterwards was suddenly roused up, partly by the crying of her child, and partly by a violent burning pain in her face. She started up and loudly called for assistance, in which cry the prisoner joined. A medical practitioner soon came, and it was found that some corrosive liquid, probably sulphuric acid, had been thrown over the mother and child while sleeping. The eyelids of the prosecutrix were then so swollen, that it could not be determined whether her sight had been destroyed or not. The right side of her face, her right shoulder, and left arm, had been considerably injured by the acid; while there were several severe *wounds* on the right side of the face and the right arm of the child. Proper applications were immediately made, and the further dangerous effects of the corrosive liquid thereby prevented. The healing of these injuries took place very slowly, and it was not until after fifteen weeks that the report of the patient's condition was made by the medical attendant.

There was no doubt of the liquid having been concentrated sulphuric acid, not only from an examination of the *wounds* soon after their production, but also from an analysis of some found in a bottle which was lying in the room. In defending the prisoner, an attempt was made by her counsel to show that her mind was disordered, and therefore that she ought not to be held responsible for the act. She was carefully examined, but no evidence of insanity appearing, she was condemned by the court to ten years' imprisonment for having attempted the life of the prosecutrix and her child. The execution of the sentence was deferred; since another allegation had been put in by a physician who saw her after the trial, to the effect that she was undoubtedly insane. In consequence of this, the prisoner was sent to the asylum at Hofheim, and was closely examined by the attendant physician of that establishment. He states that, at the first view of the prisoner, he suspected that she was feigning insanity. She affected to be imbecile, but her manner was obviously studied. His suspicion was confirmed when, upon enquiry, he found that, during her journey, she had talked and acted rationally enough with those who accompanied her; while he himself could obtain only trivial and unmeaning answers to his questions. The old expedient was adopted for detecting the imposture. At his next visit, the physician pretended to take compassion on her condition, remarking to the attendant, that, as the memory of the poor girl appeared to have suffered from her confinement, he should try a plan for her relief, which he had already found remarkably effectual in another case, namely, the application of a red hot iron to the back of the head; he then directed the attendant, still in the hearing of the prisoner, not to fail to have the furnace in readiness the following morning. The expedient was perfectly successful. The next morning, the memory of his patient was completely restored, and she answered all the questions put to her with the greatest readiness. During the three weeks which she afterwards remained in the asylum, the physician contrived to gain her entire confidence: she related to him her whole history, and complained of the severity of the punishment to which she had been condemned. The woman was then sent to prison, but she, a third time, pretended insanity; and on being again sent to Hofheim, she contrived one night to make her escape from the asylum. About a year afterwards, she was retaken, and then again endeavoured to make the persons around believe that she was insane. The imposition, however, was too ill concealed to allow of any who saw her being deceived; and she was confined to undergo the sentence passed on her.

[*Remarks.* We are induced to call the attention of our English readers to this case for many reasons.

1. The crime, for which the prisoner was tried, is one which of late years has much increased in this country; and, to the disgrace of our criminal legislation, the law furnishes but very inadequate means for its repression, at least in England and Ireland. A case somewhat similar to the above was tried at Liverpool, in August, 1835. The prisoner, a female servant, who had been dismissed from the prosecutor's

service, met her master in the street; and, without provocation, deliberately threw in his face a quantity of strong oil of vitriol, which destroyed the skin and produced serious disfigurement. She was tried on the capital charge for attempting to maim, disfigure, &c.; but the medical witnesses differed on trial as to whether a destruction of the skin by sulphuric acid could be regarded as a *wound*. The statute (9 Geo. iv. c. 31) only makes disfigurement by stabbing, cutting, or *wounding*, a felony; and it was therefore urged in the defence that this point should be clearly settled. It was reserved for the opinion of the judges; and they subsequently decided that sulphuric acid was not capable of producing a wound, within the meaning of the statute. The prisoner was therefore acquitted of the felony; but if she had used a knife, although she might not have produced so great a degree of mischief, she would have been capitally convicted. This woman was subsequently tried and punished for a misdemeanour, for which, however, not more than two years' imprisonment can be inflicted, a punishment wholly inadequate to the crime of which she had been guilty.

We are among those who consider that the definitions of medicine and surgery should be sometimes modified in their application to medical jurisprudence. It would, we think, be easy to show that no two surgical writers, however great their reputation, are agreed upon the exact signification of the word "*wound*." Some include burns under this head, while others do not; some make the essence of a wound to consist in an *external* breach of continuity, by whatever causes produced; others require that the breach of continuity should arise from a particular class of causes, and that it should take place *suddenly*. In short, there is no consistency among writers or practitioners relative to the meaning of the term. The greater number of continental medical jurists do not hesitate to classify the injuries produced by corrosive liquids among *wounds*; and it may be observed, they are as much entitled to be considered wounds as *burns*, the name which is vulgarly, but at the same time contrary to strict chemical reasoning, attached to them. But whatever difference of opinion may exist among French and German jurists on the subject, the laws of France and Germany draw no such nice distinctions as those of England. By the laws of the Codes, a prisoner is punished according to the degree of personal injury which he has inflicted, and not according to whether he has used *chemical* or *mechanical* means for its perpetration. This glaring defect in our criminal law calls loudly for removal; it either ought not to be a felony to maim or disfigure a person by maliciously stabbing, cutting, or wounding; or it should be held equally a felony for an individual to maim or disfigure another by the maliciously throwing of corrosive liquids.

2. The repeated attempts to feign insanity on the part of the prisoner constitute a singular feature in the history of this case. It is not often that we find so frequent a repetition of an imposture before individuals who have previously detected the impostor; but the prisoner in this instance feigned insanity in the face of her own former confession. That the malady was feigned, and that her object was to evade punishment, the details of the case sufficiently show; but there is one circumstance which, to our surprise, the reporter has not referred to, namely, the *probable cause* of her committing the act for which she was tried. There appears to have existed no motive whatever on her part; and we can only attribute her extraordinary conduct to a wanton and wilful feeling to injure another. There are some who hold that the mere act of a party, without any corroborating circumstances, is sufficient to indicate sanity or insanity, and to justify responsibility or the contrary. Such persons, we presume, would have pronounced this prisoner insane, and therefore irresponsible; since her act was committed without motive, and against all the common feelings of humanity. We cannot hold with this doctrine. It is true, that crime is rarely committed by a sane person without motive; but there are numerous cases in which we are unable to trace the motive; and were we, on the principle assigned, to allow of irresponsibility on these occasions, we should be assuredly overthrowing one of the great barriers established for the protection of society. On the other hand, motives for the commission of crime are sometimes discoverable in the criminal acts of persons undoubtedly insane; but

this would not render it the less inhumane to make such unfortunate beings responsible for their actions, when no other evidence of insanity than that of their having been instigated by a motive, whether of revenge or avarice, could be adduced.]

Henke's Zeitschrift. 1836.

Case of Death from the Rupture of an Intercostal Artery in consequence of a Gun-shot Wound. By DR. GRAFF, Director of the Medical College of the Grand Duchy of Hesse.

THE deceased, a young man, æt. fifteen, received a discharge of small shot in the thorax and abdomen, at the distance of about forty-eight paces. He instantly fell, but soon afterwards got up and ran for about six hundred paces, when he again fell exhausted. About an hour afterwards he was discovered and taken home. On examining his person, the following external injuries were observed:—1. A small round wound of the form of a middle-sized shot on the right side of the chest near the sternum, and in the interspace between the first and second ribs. From this wound, a quantity of florid blood continued to issue. 2. A wound of about the same size and shape, on the right side of the abdomen between the navel and ribs. This wound appeared to be superficial: no blood issued from it. 3. A slight contusion of a circular form on the left side of the abdomen not far from the umbilicus. The deceased died thirty-eight hours after the receipt of the wounds.

An inspection of the body was ordered to be made. On tracing the course of the wound of the chest, it was found that the substance of the pectoralis major, through which the shot had passed, was filled with thick black blood. A quantity of the same kind of blood continued to escape from the thorax through the orifice during the inspection. On laying open that cavity, the quantity found extravasated amounted to about twenty-eight ounces, the greatest extravasation being on the right side. The right lung was collapsed, occupying only about one-fourth of its cavity. There was an opening on its anterior surface at the upper part, corresponding to the external wound [1]. From this a canal was traceable for about *an inch and a quarter* into the substance of the right lung backwards: it then took a course towards the surface of the organ for about an inch and a half, and terminated in a cul de sac. At the inferior margin of the sixth rib, and at about two inches from its head posteriorly and internally, a lacerated opening of about an inch in depth was discovered. On carefully dissecting this part, the sixth intercostal artery was found torn through, and the muscular structures around were filled with blood. No foreign body was here discovered by which the wound might have been caused, nor was there any communication externally and posteriorly by which such a body might have passed out. The abdominal wound, [2] was about the size of a pea: it penetrated the abdominal cavity; but the viscera were uninjured. No shot could be discovered to account for this wound.

Dr. K—, one of those who conducted the inspection, gave the following medico-legal opinion on the cause of death. The wounds of the abdomen [2] were unimportant, and wholly unconnected with the death of the deceased. The rupture of the sixth intercostal artery, if it could be shown that this vessel had been ruptured at the time the deceased was shot, would have caused a degree of hæmorrhage highly dangerous to life. He could not, however, ascertain from the inspection how this wound in the artery had been caused, or whether hæmorrhage had really taken place from it. The wound between the first and second ribs [1] appeared to have occasioned a loss of about six pounds of blood. The death of the deceased, in his opinion, was entirely due to this wound; which was in itself *absolutely mortal*, and its consequences were not to be prevented by art.

Dr. L—, the other inspector, agreed in opinion that death was owing to excessive hæmorrhage, and to an interruption of respiration through compression from the extravasated blood. The hæmorrhage, however, according to him, arose from two sources: 1. from the wound seen externally between the first and second ribs, which may be called the *anterior* wound; and 2. from the wound internally between the sixth and seventh ribs, which may be called the *posterior* wound. He attri-

buted both of these wounds to the small shot, which had penetrated the cavity of the chest. The hæmorrhage from the anterior wound might probably have been arrested by timely medical aid; but the posterior wound he regarded as absolutely mortal, since no means could have been here employed to stop the flow of blood. The anterior or external wound, which Dr. K— had pronounced absolutely mortal, was, according to Dr. L—, only *accidentally mortal*.

In consequence of this difference of opinion between the two inspectors, as to which wound was the immediate cause of the fatal hæmorrhage, Dr. K— was again referred to for a more precise statement of his views relative to the origin and probable effects of the posterior and internal wound. In answer to this application, Dr. K. observed, that he did not think the laceration of the intercostal artery (the posterior wound) had been caused by the shot which had penetrated between the first and second ribs (the only opening into the chest); because the wounded artery lay six or seven inches below the level of the course which the shot had taken in penetrating; and there was not the slightest communication between the canal which it had formed and the posterior wound. He attributed the laceration of the artery to the effect of disease in the lungs, such as the deposition of calcareous matter in the parenchyma, which was met with on inspection. In his opinion, the rupture of this vessel had taken place from morbid causes long before the accident; and the sole source of the blood extravasated was the anterior wound. The hæmorrhage proved fatal because there was no possibility of arresting the flow of blood in the first instance. The anterior wound therefore was by no means *absolutely*, but *accidentally mortal*.

The College was then appealed to, in order that a satisfactory report might be obtained; and the following is the substance of a very able analysis of the data upon which they had to found their decision.

"It is admitted in the report, that the sixth intercostal artery was torn through within a very short distance of its origin from the aorta, a circumstance which, notwithstanding the gradually decreasing size of the vessel and its smaller diameter at that part, would give rise to an incessant and abundant hæmorrhage. Hence death, in such a case, must speedily follow from extreme exhaustion, and from a mechanical interruption to the function of respiration. Besides, these fatal symptoms would necessarily show themselves within the first quarter of an hour after the occurrence of the rupture or laceration, from whatever cause it may have been produced. As the deceased left his home perfectly well on the morning of his death, so it follows that the laceration of the artery must have occurred between that period and the time of his falling down in an exhausted condition, most probably but a short time before he fell.

"In the opinion of Dr. K—, there must have been an aneurismal enlargement or an abscess of the intercostal artery, which burst accidentally about the very moment that the wound in the chest was received. This, however, is positively contradicted by the previously good state of health of the deceased, and still more strongly by the absence of all morbid changes indicative of these diseased conditions of the vessel at the post-mortem examination. It seems to us certain, that the laceration must have taken place but a very short time before the deceased fell, especially since, by his running six hundred paces after having received the shot, the hæmorrhage was likely to have been rendered much more profuse. It appears highly probable, if not certain, that the posterior wound must have been occasioned at the same time and by the same means as the anterior; and we have now to determine whether there be any part of the post-mortem examination opposed to the admission of this opinion. The shot which had produced the abdominal wound could not have occasioned it, since it did not traverse the diaphragm. There was no external penetrating wound at the posterior part of the chest; and indeed the only wound penetrating the cavity was that already described as situated anteriorly between the first and second ribs. Through this opening, then, the shot must have entered which produced the deep-seated laceration. From the examination of this wound during life and after death, it is clear that the canal which the shot had formed did not pass horizontally backwards, but in a direction from *above down-*

wards. Under these circumstances, the part at which the shot would strike posteriorly would be between the *sixth and seventh ribs*. The circumstance of no shot having been found in the neighbourhood of the wound, is no obstacle to the admission of this opinion of its origin: since it is well known that large musket bullets are often deflected from their course by a slight resistance, and lie concealed in parts remote from the wound. If this be observed with regard to such large masses of lead, *a fortiori* it would take place with small shot.

“Dr. K— has fallen into a considerable error, in stating that the wound of the intercostal artery was six or seven inches below the level of the course of the anterior wound. He seems to have forgotten, that the ribs posteriorly are much higher than they are anteriorly, and that in all well-formed skeletons a line carried *straight* backwards from the situation of the anterior wound between the *first and second ribs* would touch the upper edge of the *fifth rib* behind. Now, the distance from the upper edge of the fifth rib, posteriorly and internally, to the lower edge of the sixth, is not more than *one inch and a half*. In the report, the anterior wound is described as taking a superficial course on the right lung, after having penetrated, and terminating in a cul de sac. This description is very imperfect. The obliteration of the course of the wound through the lung backwards is easily explained by the circumstance of that organ having become so contracted in volume as to occupy only one fourth of its cavity.”

The general conclusions of the College were, 1, that the deep-seated wound had been caused by the shot which penetrated, and that this wound had caused death by lacerating the sixth intercostal artery, and giving rise to profuse hæmorrhage. As no surgical assistance, even had it been at hand, could have succeeded in stopping this flow of blood, the wound was to be regarded as *absolutely mortal*. 2. That the anterior wound in the chest was, by hæmorrhage from the lungs, accidentally mortal, and that it had probably had some influence in accelerating death. That the other wounds were superficial, and had no influence whatever in causing death.

[Remarks. This case presents several points worthy the attention of the English medical jurist.

1. The marks of violence from a gun-shot wound when small shot are used, may be very slight externally, and yet be followed by speedily fatal consequences. In the case before us the external wound was extremely small, probably not more than one shot had penetrated. Yet there can be no doubt that this shot traversed the right lung in a slanting direction, and tore asunder the sixth intercostal artery. The case consequently proves that a wound of an intercostal artery near its origin from the aorta, may prove fatal to life. The most singular circumstance connected with the wound is that the shot, after lacerating the artery and coming so closely in contact with the parietes of the chest posteriorly, should not have passed out through the skin; but experience has long since shown, that it is impossible to speculate on the course of projectiles, when they have once penetrated the cavities of the body.

2. This case also shows fully the difficulty that may sometimes exist of connecting a deep-seated internal wound with the orifice or entrance of a projectile. The canal from the collapse and shrinking of parts, especially where the projectile is small and the structure of the organ traversed by it spongy, as in the instance before us, is often highly difficult to trace. We think this sufficiently explains why the course of the shot was not discoverable. The material difference which the discovery of a communication between a superficial gun-shot wound and one which is deep-seated must make, in a medico-legal opinion respecting the cause of death, where hæmorrhage may have taken place from both, is a sufficient reason for a medical jurist devoting more than ordinary attention to the performance of this part of his duty.

3. There is another point which requires to be adverted to. We are very apt, from the manner in which we acquire our knowledge of anatomy, to adopt the most erroneous views respecting the relative position of parts; and where we have not the skeleton or subject before us, we are frequently liable to fall into error

respecting the course of a wound. It is not unusual to find a wound described as passing downwards, when in fact it has traversed the chest, as in the case here reported, in the antero-posterior axis. This description applies to a subject in the recumbent posture, but not to the individual as he was placed when he received the wound; an idea which we should always have before us in the medico-legal description of these injuries. The wound then in this instance passed from *before backwards*. With regard to its direction downwards or inferiorly, we have satisfied ourselves of the correctness of the opinion given by the College by the following observations. We selected four skeletons, and found, that in all a horizontal line drawn from between the first and second ribs anteriorly through the chest, touched the upper border of the fifth rib posteriorly; that in two of these skeletons, the distance from the upper border of the fifth rib posteriorly, two inches from the spine to the lower border of the sixth, was about *one inch and a quarter*, in two others *one inch and a half*. One of the skeletons was as perfect as art could make it. In this, the measurements corresponded exactly to those laid down by the College.

4. In the report we find, as usual, a great deal said about *wounds accidentally and absolutely mortal*. The difference in the signification attached to these terms will be sufficiently gathered from the report. The laws of some states of Germany require that this difference in wounds should always be specified by medical jurists; and accordingly, certain arbitrary rules are laid down for that purpose. To the English practitioner such a difference in the same sense as it is understood by the Germans, is wholly unimportant. He is required to state, in the event of death, merely whether the wound was the cause of death, and whether there were any circumstances which tended to aggravate its effects on the system.]

Henke's Zeitschrift für die Staatsarzneikunde, 1836.

TOXICOLOGY.

Case of Poisoning by Sulphuric Acid. Death after twelve weeks. By DR. BRAUN, of Fürth.

ON the 12th of March, 1834, a young woman, just before going to bed, swallowed some liquid which had been prescribed for her by a person unknown, for an illness under which she was labouring. Immediately after having swallowed it, she perceived an extremely burning sensation in the mouth and throat. Not feeling alarmed, she went to bed; and on the next morning was found lying insensible, and unable to give any account of her condition. A quantity of mucus and blood was seen near the bed. About ten o'clock, she came to herself, but she was not brought to the house of her parents until the following day.

A portion of liquid which remained in the glass, out of which she had swallowed the dose, was examined on the 15th, and found to be sulphuric acid, though not in its highly concentrated state. The parents were informed of this, and the girl then for the first time confessed that she had taken the liquid as a medicine prescribed for her. Although three days had elapsed, she still complained of a violent burning sensation in the throat, with severe pain, and of almost an utter impossibility of swallowing. The tongue and throat appeared to be covered with a white incrustation. In the progress of time, these symptoms, under proper treatment, abated, and the power of swallowing returned. Water and milk were then freely prescribed, for the purpose of washing out the mouth and fauces; but the irritability of the stomach continued so great, that even at the end of the second week, if liquids or solids were taken in any quantity, they were immediately rejected. During the third week, the vomited matters resembled dark coffee-grounds in colour, and were highly offensive; but they afterwards assumed more of a mucous character. It was also observed, that after every meal, she suffered extreme pain in the region of the stomach, which did not abate until all that she had taken had been thrown off. Owing to this disturbance in the functions of the stomach, she became slowly more and more emaciated, and finally sank, apparently from pure exhaustion, on the 4th of June, *twelve weeks* after

having swallowed the poison. Latterly, attempts were made to support her by nutritious enemata, but no means could arrest the progress of the fatal emaciation. During the whole period, her mind was calm, and her faculties clear.

An inspection of the body was made on the 7th of June, three days after death. It had wasted to a perfect skeleton: there were not the slightest vestiges of mammæ. It had undergone no putrefactive change. (N.B. Bodies which are emaciated, are, *cæteris paribus*, very slow in putrefying.) A small quantity of serous fluid was found in the chest, and about two ounces in the pericardium. With the exception of the heart being very flaccid, and the lungs presenting a few small tubercles, the thoracic viscera were healthy. The stomach was preternaturally large, and it contained a considerable quantity of greenish coloured offensive liquid. On the anterior wall of the stomach, and at the cardiac extremity, were two patches of ulceration, in which the mucous membrane had been entirely removed. There were no traces of ulceration in the intestinal canal; but here and there, the parietes were thinner than natural. Around the pylorus, the stomach was extremely thickened; the pylorus itself appeared perfectly cartilaginous, and the aperture was so *contracted* as only to admit the barrel of a quill. There was no other abnormal change. The reporter of the case feels satisfied that, had proper remedies, such as alkaline carbonates, been employed in the first instance, the fatal effects of the poison might have been prevented. Had the deceased not kept the circumstances concealed, it would not have been, he imagines, too late to have exhibited these remedies on the day following that on which she had taken the poison. It is certain that the acid must have been much diluted, when swallowed, or the fatal consequences would probably have been more speedily induced, and the morbid changes more extensive.

[*Remarks.* This case is not so well reported as the generality of those contained in Henke's Journal. In all cases of poisoning, it is important to know the probable quantity taken, as also, if it be a mineral acid, the probable degree of concentration in which it has been swallowed. The latter point, at least, might have been here determined from the residue of the acid found in the glass; and, indeed, with regard to sulphuric acid, the quantitative analysis is so simple, that, in general, if there be sufficient for its presence to be indicated, there is sufficient for its strength to be determined. We dwell upon this circumstance, because it is too much the custom, in the report of cases of poisoning by the mineral acids, to find it altogether neglected; and it requires but little reflection to show, that this question ought to be solved in order that one case should be fairly compared with another. This case presents, nevertheless, an interesting example of the secondarily fatal effects of the mineral acids, and furnishes additional evidence of the great length of time for which life may be protracted.

The morbid changes were entirely confined to the stomach, and were not very considerable; the ulceration was limited to a small portion of mucous membrane. The pylorus seems to have had its functions entirely destroyed, to have become indeed, almost impermeable to the passage of the food, a condition which at once accounts for the constant vomiting under which the deceased laboured. Although it might not be easy to explain the fact, yet we cannot doubt that the poison was the cause of this diseased state of the pylorus. Dr. Christison remarks, that in these cases of chronic poisoning, the pylorus is so contracted as scarcely to admit a probe. It would then appear that this is a very uniform morbid change. This circumstance should be borne in mind, since, in a case under criminal investigation, it might be urged by counsel, that the change should be ascribed to previous disease. As it is often extremely difficult to distinguish between the effect of poison and disease, in examining the dead body, so we cannot attach too strong a value to those cases in which the frequent recurrence of a peculiar morbid change like this, clearly indicates the cause to which it should be ascribed. Although *three months* may be regarded as a long period for an individual to survive the effects of a powerful mineral acid, yet a case is on record in which the patient did not die until after the lapse of *eight months*.]

Henke's Zeitschrift, 1836.

PART FOURTH.

Selections from the British Journals.

(FOR THE QUARTER ENDING FEB. 28, 1837.)

ANATOMY, PHYSIOLOGY, PATHOLOGY.

On the Motions and Sounds of the Heart. By Drs. WILLIAMS, TODD,
and CLENDINNING.

THE memoir on this subject was read at the Bristol meeting of the British Association, and is of considerable length. The conclusions arrived at are supported by many experiments on living animals, which are detailed. We gave a brief notice, in our Fourth Number, of the conclusions come to by the gentlemen above named, who constituted a committee in London appointed for the investigation of this interesting and important subject. We give here, in the words of Dr. Clendinning, the reporter of the committee, the *Summary and Conclusions* which terminate the Report:

1. The first sound of the heart, as heard in the chest, is generally complex in its nature; consisting of one constant or essential sound, and one perceptible only under certain circumstances. This constant element of the first sound may be considered as intrinsic, appearing to depend on the sudden transition of the ventricles from a state of flaccidity in diastole to one of extreme tension in systole; [in a word, the first sound is essentially a muscular sound;] while the extrinsic, or subsiding sound, which in a variety of circumstances contributes largely to the first sound, arises from the impulse of the heart against the parietes chiefly of the thorax.

2. The collisions of the particles of the blood amongst each other, or against the interior parietes, valves, &c. of the heart, do not appear to have any share in the normal first sound of the heart; neither do the motions of the auriculo-ventricular valves; and the attrition of the opposite interior surfaces of the heart's cavities seems purely hypothetical.

3. The principal, and apparently only cause of the second normal sound of the heart, is the sudden closure of the sigmoid valves, by the columns of blood that recoil back on them during the diastole, impelled by the elastic contraction of the arteries.

4. The columnæ carneæ appear to act simultaneously with the parietes of the ventricles, and in such a manner as to make it apparently impossible that the auriculo-ventricular valves should close with a flap, in the same manner as the sigmoid valves.

Med. Gazette, Dec. 10, 1836.

On the Chemistry of the Digestive Organs. By R. D. THOMSON, M.D.

FROM experiments and observations made by himself and others, Dr. Thomson concludes that the stomach, in a state of health, retains a quantity of free muriatic acid, and also that dilute muriatic acid is capable of producing, by digestion with animal matter, at a temperature of ninety-eight degrees, a substance similar to chyme; and infers that this acid is therefore an important agent in the process of digestion. The only diseases of the stomach indicated by chemical reagents are common acidity, or heartburn, and pyrosis. In this last disease, Dr. Thomson has ascertained that the gastric secretion is diseased; alkali having taken the place of the free acid. He found the alkali to be ammonia, with (probably) also a little

soda. In consequence of this, Dr. T. has prescribed acid, and he assures us with great benefit, immediate relief being afforded by it. In one case, of three months' duration, the use of an acid mixture for two days effected a perfect cure. In chronic cases, Dr. T. also prescribed anodynes, as conium and hyoscyamus.

In examining the fluids of the mouth during health, Dr. Thomson, with Donné, found them alkaline or neutral. Donné says that the mucous membrane of the alimentary canal (which is alkaline,) and the skin (which is acid,) constitute a kind of voltaic pile; when one of the poles of a delicate galvanometer is placed in contact with the mouth, and the other with the skin, distinct electric currents are produced, which cause the needle to deflect fifteen, twenty, or thirty degrees. Dr. Thomson says, that he has found the mouth indicating an acid reaction whenever inflammation existed in any of the membranes in connexion with it, as in laryngitis, pleuritis, bronchitis, gastritis, enteritis, &c.; and that inflammation of mucous and serous membranes generally is attended by the secretion of free acid. He therefore suggests the local application of alkaline solutions, where practicable, as in erysipelas, urethritis, &c.

Records of General Science, Dec. 1836.

Physical Signs of the Height of the Diaphragm in the Chest.

By EDWIN HARRISON, M.D.

DR. HARRISON, who has been long engaged in investigating the physical signs of internal diseases, announces the following as among his recent discoveries. It is, however, but justice to Dr. H. to say, that he wishes his statements to be considered as mere generalities, and, as such, open to exceptions, limitations, &c.

1. A depression about the height of the lower dorsal or first lumbar vertebra, from which the finger, in mounting along the spine, will come to another depression, corresponding with tolerable accuracy to the height of the diaphragm at that part.

2. On moving the hand along either side of the chest vertically, on what may be considered as the median line, it will sink into a depression corresponding to the height of the diaphragm on that side.

3. A depression, or depressions, between the ribs can be felt or seen, or both felt and seen, at each abdominal inspiration, indicating (at least in the physiological state,) the presence of the diaphragm in that part of the chest. By this means the height of the diaphragm on the left side can be judged of, to a certain extent, even through the heart.

Query: What relation do these last-named depressions bear to the tilting up of the chest, which occurs not merely at its lower part, but as high up, at least, as the lateral depressions previously mentioned? *Med. Gazette, Dec. 10, 1836.*

On the Causes of the Resonance in Percussion. By JOHN CLENDINNING, M.D.

THIS valuable paper contains the details of a case of pleurisy, with the appearances on dissection, and the notes of various experiments made on the dead body, with the view of ascertaining the cause of the sound on percussion and the effect of different conditions in modifying it. We can only here state briefly some of the results of Dr. C.'s enquiries, and must refer the reader to the interesting paper itself. The following are some of Dr. C.'s conclusions:

1. That, in cases of hydrothorax, if either lung be nearly so ind, there will be no fleshy dulness of resonance in any of the lateral parts of the chest.

2. That, in simple pleurisy, we must not expect to find the pulmonary resonance wholly wanting, even in cases of extreme effusion and compression.

3. That, in cases of effusion in the thorax, respiratory sounds may be expected to be heard at the usual places, so long as the effusion is not so great as to compress the lung to an extreme degree; probably so long as any considerable portion of the lung continues permeable by air of the bronchus.

4. That the wall of the chest is not the source of the soft pulmonary or dull

hepatic resonance; but that this is owing to the lungs, liver, &c., respectively seated beneath the parietes; and that the walls are but conductors of the resonance of the organ beneath them.

This last conclusion is in direct opposition to the opinion of Dr. Charles Williams, as will be seen by the notice which immediately follows.

Med. Gazette, Jan. 7, 1837.

On the Theory and Practice of Percussion as a Mode of Diagnosis.

By C. J. B. WILLIAMS, M.D. F.R.S.

SUCH of our readers as are acquainted with the very excellent treatise of Dr. Williams, *on the Pathology and Diagnosis of Diseases of the Chest*, will be prepared to expect in this paper philosophical accuracy of illustration and sound practical precepts; and they will not be disappointed. We regard it as indicating a decided advance both in the theory and practice of percussion. The copiousness of our extracts will sufficiently prove our estimate of its value. We have always regarded *Percussion* as, for various reasons, of fully as great practical value as *Auscultation*; and we are gratified by every addition made to it. The present paper decidedly contains both additions and improvements. We particularly call the reader's attention to the observations on the *degree* of percussion; a circumstance, the great importance of which we noticed in our last Number (p. 187), and with which we have been long familiar in practice, although its true theory we confess our ignorance of, until we read Dr. Williams's paper. The following are the more important passages in Dr. Williams's memoir:

"It is well known that different bodies yield different sounds when struck; and it is supposed that, as hollow bodies yield the loudest sound, this must proceed from the vibrations of the air within them. Solid bodies, and those containing liquids, on the other hand, give dull sounds, from being destitute of air. So, it is supposed, the chest will yield a sound loud in proportion to the quantity of air contained within it; this air being the most sonorous body. Now, this view, which, as far as vague expressions can be interpreted, is the one generally received, I conceive to be opposed by the following considerations:

"1. If the sound obtained on striking the chest depended on the vibrations of the air within, it should be deepened in tone by increasing the volume of that air, and raised by diminishing it; just as the note given by any hollow vessel, when struck, will be deep in proportion to the size of its interior. Now, changing the quantity of air in the chest by acts of respiration does not in this manner alter the sound of percussion: slight changes produce no difference; and a very full inspiration, instead of deepening the sound, actually raises its tone in a very perceptible degree.

"2. If the sound of striking the chest originated in the air within it, it should be greatly changed by closing the glottis; for the sound given by a hollow vessel, or India-rubber bottle with its mouth closed, is totally different from that which it yields with its mouth open. Now, provided no respiratory effort be at the same time made, striking the chest gives the same sound whether the glottis be shut or open.

"3. The sonorous vibrations of air contained in cavities may be of two kinds. One depends on any impulse communicated to the mouth of the cavity, and resisted by the body of the air within, acting in the manner of a bottle, or of a tube closed at one end. This requires that the cavity should communicate with the external air, which we have seen is not necessary to the pectoral sound. The second kind of sound produced in air-filled cavities, is that resulting from the successive reflexions of any sonorous impulse from side to side of the cavity; which reflexions, becoming regular vibrations, constitute a sound of a determinate character. This constitutes the prolonged reverberations heard in empty casks, the tinkling echo of the interior of bottles, cups, &c., the phenomena of metallic tinkling and amphoric resonance heard in various smooth air-filled cavities of the animal body. But this cannot constitute the sound of pectoral percussion; for, in a cavity of the size of the chest, instead of being drum-like, it would be tinkling, as it actually is in pneumo-thorax. Further, the pulmonary tissue, as it prevents the transmission of

the voice from the bronchi to the surface, except at points where these are quite superficial, so much more completely will it prevent the transmission and reflexion of sonorous vibrations to and fro, across the whole interior of the chest.

"The last argument will be, to those who are really familiar with the laws of acoustics, quite conclusive against the notion that the air in the chest is the seat of the sound elicited by percussion. There is, in truth, no air-filled cavity, but a heterogeneous sponge, eminently calculated to arrest the vibrations of air, and which does more or less completely intercept those of the voice from being transmitted to the parietes of the chest. To consider the air in the lungs to be the seat of sound of percussion of the chest, is about as reasonable as to suppose that a flute or a pan-pipe would yield its tones when filled with wool.

"It being thus proved that the air in the lungs is not the seat of the sound elicited on striking the chest, we are driven to the supposition that the solids are the essential seat of the vibrations, and that they derive the character of their vibrations from their own degree of tension, and from the nature of the resistance offered to them by the adjoining, and especially the subjacent, parts. This is the view which I have for some years adopted, and the following remarks will, I trust, illustrate its correspondence with the phenomena, and show how it will materially aid us in the practice of percussion.

"The bony frame of the thorax, bound together by elastic cartilages and ligaments, —its interstices filled up by the intercostal muscles,—and its whole interior lined tensely by the costal pleura, constitutes an elastic box or drum, any part of which may be readily thrown into sonorous vibrations by an impulse applied to its surface. There are, however, superimposed on this framework, at certain parts, various muscles, the scapulæ and the mammary glands; and the integuments, with their fatty and cellular tissues, cover the whole exterior. The effect of these is to deaden in various degrees the sound produced on percussion; and they do this both by intercepting and deadening the stroke, and also by their loose mass muffling the vibrations. It is by bringing these soft inequalities into a firm, equally tense surface, on which percussion can be effectually practised, that M. Piorry's pleximeter proves chiefly useful; and by means of it, or of the fingers of the left hand applied for the same end, any part of the walls of the chest may be brought to such a degree of tension as, when struck, to vibrate *according to the nature of the substance which lies beneath it*. If, for example, that substance is the air-filled tissue of the lung, it offers such a yielding but elastic resistance as gives the part struck a freedom and length of vibration; the sound elicited is therefore clear and deep-toned. If the substance under the point struck is solid, and contains no air, as the liver, the vibrations being abruptly resisted, the sound has no depth or continuance, but is dull or *mat*. If a body of liquid be underneath, this will also check the vibrations, so that the sound yielded will be merely a short dead *tap*. In pneumo-thorax, where the chest contains air instead of lung, the parietes approach more nearly to the condition of the parchment of a drum, and give, when struck, a sound unusually clear. In this sound we may often perceive a hollow or metallic character, ("stomacal" of Piorry,) which is not present in the pulmonary sound. This character truly *does* depend on the vibrations of the *air* contained in the cavity, which here presents a condition that we have proved to be wanting in the pulmonary tissue. The same character will be found in the sound obtained on percussion of the region of the stomach, cæcum, and other parts of the intestines, which also present the condition of a cavity in which air vibrates, and adds its note to that of the walls percussed.

"We now see that the air-filled structure of the lung is not the only condition requisite to render the pectoral resonance deep and clear; a certain elastic tension of the walls of the chest, at the point struck, is also indispensable; inasmuch as these walls are the essential seat of the sound. The anomalous cases, adverted to by Laennec, of badly-sounding chests, where the lungs are healthy, are referrible to a defect of this latter condition—elasticity of the walls. In a few cases a peculiar laxity of these walls causes the defect of resonance; but the commoner cause is a drawing in of these walls from certain conditions of the interior. Contractile

pleurisies, by leaving adhesions, the constant tendency of which is to shorten, draw in the parietes of the chest, so as to destroy that equality of tension which fits them for vibration; and consequently chests thus affected rarely recover their original resonance. Another cause, which is rarer, and may be only temporary, is spasmodic asthma. In this affection the bronchial muscles are permanently contracted, so as to diminish the size of the whole lung, and the walls of the chest are kept under the constant influence of unequal atmospheric pressure, either from without or from within, which much impairs the freedom of their vibrations. In all these cases mediate percussion on a pleximeter, or on the fingers pressed firmly to the chest, will often obtain a pretty clear sound; and this it obviously effects by the pressure exceeding the force drawing from within, and by thus restoring in a measure the balance of tension.

"There is another cause of defective resonance that well illustrates the subject before us. In advanced stages of phthisis, where a large portion of a lung is excavated, and a thin layer of pulmonary tissue on the pleura only separates the cavity from the parietes, this portion of the chest will sound dull, although there is actually more air in it than exists in the healthy state. The thin layer of pulmonary tissue falling loose and flaccid on the parietes, acts as a damper upon them, checking and muffling their vibrations, just as a handkerchief on a violin string will stifle its notes.

"We can now understand why, on a full inspiration, the sound on percussion is higher in tone than usual; the expanded parietes are then brought to a greater degree of tension, vibrate more quickly, and therefore yield a higher note. A forcible expiration has a similar effect, with this addition, that there is a diminution of that elastic material within, which resists like a spring the stroke of percussion on the exterior. Emphysema of the lung, when it is sufficient to give to parts of the chest that rounded convex form which is so remarkable in the extensive degrees of this affection, has an effect on the percussory resonance similar to that of a full inspiration; it renders the sound louder, but higher in key, the distended lung resisting with a stronger spring than usual the impulse of the parietes.

"But the most important application of this view is to guide us in regard to the mode in which percussion is to be performed, in order to make its results bespeak the condition of the internal parts. The first precaution to be observed is, that the spot percussed shall be in such a state of tension that it may vibrate; and if this be not the natural condition of the part, a degree of pressure, with the finger or pleximeter, will give this condition to it. With regard to the stroke of percussion, I need not repeat the usual rules, that it should be made perpendicularly to the surface, and on corresponding points on comparing the two sides, &c.; but there is one particular in the practice of percussion that deserves more notice than it has received,—I mean *the force of the stroke*.

"According as the chest is struck gently or forcibly, so will the impulse be confined to the superficial parts, or it will reach those that are more deeply seated; and as the vibrations will be determined by the nature of the resistance which the impulse meets as far as it reaches, so will the character of the sound vary with the force of the stroke, if the superficial and the deep-seated parts differ in their densities. A want of the knowledge of this fact has been a fertile source of practical error among auscultators, especially the less experienced; and, although, even when aware of it, we have still the difficulty of estimating accurately the degree of force used, and of judging between slight differences of sound, yet the following observations will, I think, shew that attention to this matter will often facilitate the employment of percussion, and increase the number of its useful results.

"In all the upper parts of the chest, the lungs in health occupy so great a depth, that the sound elicited by percussion will be of the character called pulmonary, whether the force of percussion be great or small. In the posterior regions, of course, strong mediate percussion will give the best sound, inasmuch as it overcomes the deadening effect of the thick layer of muscles in that region. But in the inferior parts, the heart and the abdominal viscera that rise in the middle of the chest, beneath the vault of the diaphragm, reduce the thickness of the pulmonary

tissue in various degrees. On the right side of the chest strong percussion, carried from above downwards, generally detects a diminution of the sound below the fourth rib, which indicates the common height of the arch of the diaphragm and liver in the central portions of the chest. Below this the sound becomes more and more dull; and in this gradual *shading off* of the sound, it is extremely difficult to define where the pulmonary sound ends, and the pure hepatic sound begins. Very gentle percussion will do this, and will distinctly elicit a pulmonary sound three or four ribs lower, down to the very thin margins of the lower lobes. In the region of the heart, also, where the thin margins of the lung during full inspiration overlap the organ, gentle percussion will generally indicate how far the thinnest portion of lung reaches, where stronger percussion announces the resistance of the deeper seated solid. It is not equally easy to define the limits of the lung, where it overlaps the stomach or colon; for, although deeper seated, the tympanitic elasticity of these organs makes them susceptible of vibration from a very slight impulse. Still a very perceptible character of pulmonary sound may be elicited by gentle percussion on these regions, which differs from the simple tympanitic resonance of an air-filled sac.

"Such being the properties of the healthy chest as tested by these modified degrees of percussion, we may now see how disease will change them.

"Slight effusions, whether pleuritic or hydropic, occupying the lower parts of the chest, separate the lung from its close contact with the walls of the chest, without displacing it altogether. In these cases the relations of the lower parts of the chest to percussion will be the reverse of what it is naturally: the stroke of gentle percussion will not pass through the thin layer of serum, and its sound will be therefore dull; while stronger percussion will carry its impulse to the remaining pulmonary tissue, and its sound will therefore return a certain degree of pulmonary character. Even in extensive effusions into the pleura, a small portion of pulmonary tissue, into which the air can still enter, produces a perceptible difference in the sound elicited by strong percussion, although the impulse has to pass through some inches of liquid. In practising percussion on the mediastinal confines of a pleuritic effusion, the stroke should be gentle, and perpendicular to the surface; for forcible percussion, especially if it be at all oblique, will often borrow an elastic resonance from the opposite side.

"Pneumonia, or pulmonary apoplexy, situated in the margins of the lower lobes, will remove the distinction given in the natural state by degrees of force in percussion; and if the disease be, as it frequently is, circumscribed, that gradual shading off of the sound on strong percussion, which I have described as perceptible in the natural condition of these parts, will be absent. In these cases, therefore, gentle as well as strong percussion produces a dull sound; and by tracing the outlines of this dullness, we shall generally find its shape to differ from that resulting from a liquid effusion.

"Emphysema in the same situation will have a contrary effect, and will make it easier than usual to define by gentle percussion the limits of the lower lobes. If the emphysema be excessive, besides an unusual resonance, the sound will be higher in key than usual.

"In pneumo-thorax the *shading off* ceases, the sound having everywhere a tympanitic character; and if, as is usually the case, liquid effusion be also present, gentle percussion will shew with great precision the level of the liquid.

"In the early stages of phthisis, while the indurations are still of small extent, gentle mediate percussion will be the most likely means of detecting them. As tubercles most usually infest the summits of the lungs near the surface, and often produce pleuritic adhesions at those points, they will generally affect the sound of gentle percussion on the clavicles, or on the space below them; whereas forcible strokes would overcome the resistance of these small superficial deposits, and give sounds not to be distinguished from those of the healthy chest. In this very obscure and difficult point of diagnosis another rule with regard to percussion deserves attention. Aggregated tubercles can be most easily detected by gentle percussion limited to the spot: miliary granulations scattered through the tissue

are more likely to affect the vibrations, by the combined resistance of many; and the stroke should be therefore applied to a larger surface. Gentle percussion on a single finger, or a small pleximeter, will be the most likely to afford indications of the presence of the former; while scattered granulations may be better detected by mediate or immediate percussion by the fingers of the flat hand applied over some inches of surface. In examining a doubtful case, both these methods must be used at different periods of the respiratory movements; and I can state, from some experience, that attention to these particulars will leave many fewer of the cases of incipient phthisis in that negative uncertainty that has been the reproach of even the present improved state of diagnosis.

"It is unnecessary to dwell on other applications of these principles, to indicate how percussion in its modifications may be rendered an easier and surer test of disease: as, for instance, flat percussion, in humid bronchitis, first stage of pneumonia, and œdema of the lungs, giving some mark of the extent of the effusion; strong percussion giving an outline of an enlarged heart, or of any deep seated condensation; gentle mediate percussion indicating with exactitude the state of the more superficial contents of the chest and abdomen; and so forth."

Med. Gazette, January, 1837.

On the Tubulo-fibrous Structure of the Brain. By ANDREW PRITCHARD, Esq.

As far as we know, the discovery of Ehrenberg of the tubular structure of the cerebral substance has been verified for the first time in this country by Mr. P. The present is a mere note stating the fact, and pointing out the best mode of ascertaining it. Mr. P. states the diameter of the constricted parts of the tubes (in the brain of a sheep) to vary from 1-1500th to 1-1800th of an inch. We have had for some time in preparation an article on the discoveries of Ehrenberg, which we hope soon to present to our readers.

Med. Gazette, December, 1836.

On the Cause of the Second Sound of the Heart. By THOMAS WATSON, M.D.

Dr. W. gives an account of three cases which he justly regards as affording strong support to the theory originally suggested by Dr. Carswell, viz. that the second sound is caused by the sudden closure of the sigmoid valves of the aorta. The first and second cases were of men, in whom there existed "a loud and prolonged noise accompanying the diastolic movement of the heart and alternating with the pulse." These cases not proving fatal, Dr. W. could only *infer* that the aortal valves were the part affected from the period of occurrence of the sound, and because his dissections had taught him, in other cases, that where a bellows-sound had accompanied the second sound during life, there was always "some change which must have rendered the closure of the aorta by the sigmoid valves imperfect." This inference was greatly strengthened by the occurrence of a fatal case, in which the second sound "consisted in a long-drawn and very loud vocal note." The aortal valves were alone diseased, and in such a manner as satisfactorily to explain the production of the peculiar sound. "They were all irregularly thickened . . . Two of them were folded, or rather hung back a little way. Their free margins were loose, so that the slightest force was sufficient to incline them to either side. The edge of the third was straight and tight, as usual. The other two were evidently not capable of sustaining the backward pressure of the blood in the aorta during the diastole. The stream of regurgitating fluid must have occasioned their loose margins to vibrate; and the vibration doubtless gave rise to the peculiar sound." This is a very ingenious application of pathology to explain a difficult physiological problem. We believe our own experience could supply similar evidence.

Med. Gazette, January 7, 1837.

PRACTICAL MEDICINE AND THERAPEUTICS.

On Dropsy. By DR. MATEER, of Belfast.

THERE is a form of dropsy which occurs in debilitated persons without any well-marked symptoms of organic disease: the older writers attributed it to laxity of the exhalents, but Dr. Mateer's theory is, that it depends on diminished action of the kidneys, or asthenic anæmia of these organs. It appears to be very prevalent among the Irish poor. Out of 1844 patients prescribed for at the Belfast Dispensary in 1833, there were 184 affected either with anasarca or ascites, in whom no organic disease could be detected; the urine was incoagulable. In these cases, (says Dr. M.) there were often symptoms simulating organic derangement; such as bitterness of the mouth, pain of the right side, slight cough, flatulence, costiveness, palpitations, and flutterings at the epigastrium; but these he considered as merely symptomatic of general debility, and they yielded readily to tonics. The causes of this form of dropsy, are, innutritious food, cold, and fatigue, and sometimes blood-letting carried to a great extent.

Dr. Mateer's treatment consisted in general and local stimulants: of the latter, the most beneficial were saline medicines, and of these the best are carbonate of ammonia and supertartrate of potash. In using saline medicines, it is not uncommon for the urine to become coagulable; and, as Dr. Burrows, jun., has remarked, this fact has been overlooked, from these medicines when excreted having the power of dissolving coagulated albumen, and thus masking it, if heat be the only test employed. If salines disagree with the stomach, tincture of cantharides, or oil of turpentine, may be substituted for them.

Dr. Mateer's reasons for believing this kind of dropsy to depend on anæmia of the kidneys are founded on reasoning alone. They are, 1. From the treatment: stimulant diuretics carry off the effusion, and, in doing so, they cause a temporary albuminous state of the urine by irritating the kidneys. 2. As the office of the kidneys is to excrete superfluous fluid, their imperfect action would cause a more fluid state of the blood than natural; and hence the secretion of serum into the cellular tissue. 3. Andral and other pathologists have admitted that such a state of the kidney sometimes exists.

Edinburgh Medical and Surgical Journal, January, 1837.

A Letter on Typhus Fever. By ROBERT PERRY, M.D., of Glasgow.

THIS communication refers principally to the statements and views of Dr. Lombard, noticed in our last Number, p. 260. We must content ourselves with one extract from it, which cannot fail to interest the reader, even although he may not assent to all the author's views.

"I have, for some years, entertained the opinion, founded upon an extensive series of observations, that contagious typhus is an *exanthematous disease*, and is subject to all the laws of the other exanthemata;* that, as a general rule, it is only taken once in a life-time, and that a second attack of typhus does not occur more frequently than a second attack of small-pox, and, judging from my own experience, less frequently than a second attack of measles, or scarlet fever.

"It is a very generally received opinion, that typhus fever may originate spontaneously, and become contagious from filth, improper diet, impure air, from the confinement and crowding together of human beings, or from some peculiar constitution of the atmosphere, or emanation from the bowels of the earth. Where are the well attested facts to be found, which can warrant any reliance on such

* "In proof of this, I have often, in cases shewing symptoms of typhus, and when I learned that they had been exposed to contagion, and had not been secured against by a previous attack, predicted with unfailing certainty, the appearance of the typhous eruption on the fifth, or at furthest the sixth, day from the commencement of the attack."

fancies, fancies so contrary to sound philosophy? To suppose that any of these causes could generate a specific poison, and this always of the same kind and character, capable of propagating itself by contagion, requires stronger faith than I am possessed of; nothing but the most positive evidence could make me for a moment entertain such an opinion. It is, undoubtedly, a matter of great practical importance, to ascertain exactly the period of the disease at which typhus fever becomes contagious. From numerous observations and experiments I am satisfied, that it is not contagious before the ninth day, perhaps not till a later period of the disease. Among many circumstances which establish this opinion, I may mention one experiment which I made upon a pretty extensive scale. The fever wards of the Glasgow Royal Infirmary are each capable of containing twenty patients. The beds are arranged in two opposite rows, and are pretty near each other. While the patients are in the acute wards, they are not allowed the use of their clothes, though they may be able to sit up; they are, therefore, almost constantly confined to bed, excepting when rising to stool; and there is about one close-stool to every three patients. Into the fever house are admitted, cases of measles, scarlet fever, and small-pox; and patients are very frequently sent in, labouring under bronchitis, pneumonia, erysipelas, and other local inflammatory affections. I found by experience, that when the latter class of patients were sent to the convalescent ward, where they necessarily mixed with the others, almost all those who had not a previous attack of typhus fever were either seized with it before leaving the house, or returned soon after their dismissal, labouring under it; the period intervening between the time of their being sent to the convalescent ward, and the attack, never being less than eight days. Although means were taken to keep those recovering from small-pox, scarlatina, &c., in a separate room from those convalescent from typhus, the rooms being adjoining, the non-intercourse was incomplete, and the result was, that these diseases occasionally spread among the typhus convalescents, and the convalescents from small-pox and scarlatina caught typhus. In consequence of these observations, I adopted the practice of not sending, as formerly, to the convalescent wards, those patients affected with inflammatory diseases, unless I ascertained that they were secured against the disease by having had a previous attack of typhus; but kept them in the acute fever wards till they were so far recovered as to go to their own houses, and the result was, (and the practice was continued for several months,) that not one of those detained in the acute wards caught the disease while there, or returned with it afterwards. From the above, and other observations, I have adopted the opinion, that typhus, like measles, small-pox, &c., is chiefly spread during the period of convalescence."

Dublin Journal, January, 1837.

Case of Ulceration of the Brain. By A. J. HANNAY, Professor of Physic, Anderson's University, Glasgow.

THIS case is more remarkable for the rapidity of its course than for the appearances found on dissection, although these (unequivocally those of ulceration of the brain,) are far from common. A boy, æt. nine, who although delicate had been sufficiently well to attend school, until three days before the day (22d February) he was seen by Dr. Hannay labouring under all the usual symptoms of inflammation of the brain, followed by effusion. He had extreme pain of the head, with fever and with quick pulse (116), at first. On the 23d the pulse fell to sixty-eight; on the 26th to twenty-eight; on the 27th it became again quick. He died on the 28th. Dissection disclosed the usual appearances of arachnitis, and an ulcer in the cerebral substance. No doubt the latter had been of some standing, and was the exciting cause of the fatal attack of arachnitis. The ulcer is thus described by Dr. Hannay:

"On the surface of the left anterior lobe, on its outer and under side, there was a cavity or excavation of the convolutions, partly smooth, partly granulated, of a pale primrose hue on some parts, and of the cineritious colour of the brain in others. The granulations were small, whitish, shining bodies, and gave to the

surface of the cavity the appearance of being sprinkled over with oatmeal in a moist state. Over part of the surface there was a cobweb-like expansion of small vessels: this was principally on the scabrous or granulated part. The cavity was of an irregular oval shape, with an area greater than that of a shilling; its edges were more than an eighth of an inch in depth, and fringed with the membranes which had been destroyed by the ulceration; its surface was as soft as thin paste or starch, but not diffuent."

Dublin Journal, January, 1837.

Observations on Cerebral and Spinal Apoplexy, Paralysis, and Convulsions of New-Born Infants. By EVORY KENNEDY, M.D., Master of the Dublin Lying-in Hospital.

THE celebrated Lying-in hospital in the Irish metropolis, from the records of which practical medicine has already derived so great advantages, is not likely to be barren of important results in the hands of the present master, if we may judge from the valuable paper before us. This commences with some very judicious observations on the obscurity of diagnosis in infantile diseases, particularly in affections of the cerebro-spinal system; the author justly concluding that "the most elaborate and accurate inquiries into cerebro-spinal pathology at the present day have arrived at little more than the threshold of this subject, as far as establishing a fixed relation between diagnosis and disease." Convinced that improvement in this path can only be attained "by the candid relation of what has been absolutely observed," without "embarrassing the mind of the enquirer by crude or hypothesis," Dr. Kennedy, in the present memoir, "does little more than afford a detail of actual observations made upon cases of these obscure diseases falling under his notice." As these cases, nineteen in number, are not susceptible of abridgment, we can only here indicate their general character, recommending the reader to the perusal of them in the original. We must, however, extract the explanation given by the author of the cause of the frequency of these affections in infants:

"The causes of the predominance of apoplexy in the new-born infant may be ascribed, first, to the so suddenly altered circulation, by which the influence of the maternal circulating system upon the fœtus is done away with, whilst the nice adjustment necessary in the permanent establishment of respiration, an independent circulation, and the right performance of the cerebro-spinal functions, but more especially of their mutual relations and dependencies, is still scarcely completed. The balance that time afterwards fixes so accurately between these important vital organs, as essential to the very existence of the individual, is still unsettled; and, from this circumstance, very slight causes will produce excessive derangement. The lungs, also, at this period are expanded but in part, and a very important change is effected in the circulation of the blood in the heart and great vessels by the closure of the foramen ovale, and the current passing from the ductus arteriosus. From these several causes, then, the blood is frequently thrown in excess upon the brain and lungs, or retarded in its transmission through them. The coats of the arteries are thin and yielding, and, from deranged vital energy in the still imperfectly established functions of the ganglionic system supplying them, the due transmission of the blood may be further interfered with. These considerations, with a recollection of the structure of the brain in the fœtus, which is so soft and vascular; of the compression in the dependent position to which it is liable in birth; and the difficulty and delay often attendant on the first establishment of respiration, will tend rather to excite our astonishment that cerebral affections in the infant should not be more numerous than they are."

I. *Cerebral Apoplexy in New-born Infants.*

Case 1st. Primary or simple apoplexy. 2d. Apoplexy with tonic spasm. 3d. Secondary apoplexy. 4th. A. from obstructed respiration. 5th. A. from mechanical malposition of the viscera.

II. *Spinal Apoplexy of New-born Infants.*

Case 6th. Trismus. 7th. Congestive A. of the spine. 8th. Ditto. 9th. Effusion into the spinal canal.

III. *Paralysis in New-born Infants.*

Case 10th. Paralysis of the seventh pair of nerves. 11th. P. of the portio dura of right side, and third nerve of left. 12th. P. of portio dura, and spinal nerves of right side. 13th. Hemiplegia of left side, &c.

IV. *Convulsions of New-born Infants.*

Case 14th. Convulsion of muscles of deglutition, with catalepsy. 15th. Convulsions from deranged bowels. 16th. Convulsions preceding miliary eruption. 17th. Do. from scrofulous eruption. 18th. Do. with serous effusion into cranium and spinal cord. 19th. Convulsions followed by apoplexy.

Dublin Journal, January, 1837.

Researches on the Symptoms and Diagnosis of Aneurismal and other Tumours in the Cavity of the Thorax. By GEORGE GREENE, M.D., Lecturer on the Practice of Medicine at the Richmond Hospital School, Dublin.

THIS paper, and another on the same subject in a former Number of the Dublin Journal, forms a valuable addition to our knowledge of thoracic pathology and diagnosis. The present memoir contains a detailed account of three cases, with the appearances on dissection, and many judicious remarks, observations, and inferences; all of which are well deserving perusal. We can only find room for the titles of the cases, and some general conclusions which they and those formerly published authorize the author to deduce.

CASE I. Intense dyspnœa and bronchitis: an enlarged bronchial gland, containing ossific and cretaceous matter, communicating with the right bronchus.

CASE II. Double bronchitis with intense dyspnœa; emphysema of the cellular tissue of both sides of the neck and left side of the trunk; an abscess in an enlarged bronchial gland, communicating with the left bronchial tube.

CASE III. Aneurism of the transverse portion of the thoracic aorta; sudden death from extravasation of the contents into the left pleural cavity.

The result of these cases, and of others formerly published by the author, appears to him to warrant the following conclusions with respect to tumours developed in the thoracic cavity.

"1st. That no single physical sign, taken by itself, can characterize the nature of any particular tumour.

"2d. That in many cases the presence of an abnormal pulsation in the chest, when detected by the stethoscope, affords the best indication of the existence of an aneurism, and may frequently serve to distinguish it from other tumours attended with nearly similar physical signs.

"3d. That the same rational symptoms, as they have been termed, may be produced by any species of tumour within the cavity.

"4th. That the morbid contents of enlarged scrofulous glands are sometimes evacuated through the air passages in adults, as well as in the earlier periods of life; and that during the process, death may occur from excessive dyspnœa and bronchitis, or from general emphysema.

"The analysis of the physical signs and general symptoms, observed in the above case of aneurism, and of three others which I formerly published, is as follows. In all these four cases the disease was situated in some portion of the arch of the aorta.

"*First of the Physical Signs.* A single or double impulse in situations more or less distant from the heart was discovered by auscultation in the four cases.

"Two sounds, more or less distinct, accompanied this impulse. A bruit de soufflet was heard in two, and a bruit de rape in one case.

"A feebleness of the respiratory murmur was observed in every case in one or other of the lungs; while over the same lung a clear sound was obtained on percussion.

"Bronchial rales of greater or less intensity were heard throughout both lungs in each case.

"An impediment to the descent of the morsel existed in three cases, and was

referred by the patients to situations nearly corresponding to the sterno-clavicular articulation on the right side.

‡ “*Second of the General Symptoms.* Pains of a lancinating or burning character around the parietes, or through the centre of the chest, were much complained of in all the cases; they were sometimes remittent, and relieved by pressure.

“Dyspnœa or orthopnœa existed in every case. In one only was the dyspnœa inconsiderable.

“A cough, usually of a loud, ringing, or croupy character, occurring in paroxysms, existed in each case. In three the above characters were very remarkable, in one not so much so.

“Turgescence of the jugular veins was observed in all the cases. And in two, tenderness of the spine on pressure.

“The symptoms which sometimes attend aneurism of the arch, but which were not observed in any of these cases, are as follows:—Numbness, cramps, tingling pains, œdema, or loss or difference of temperature in the upper extremities. Neither was there any difference in the pulse at either wrist.”

Dublin Journal, January, 1837.

Poisonous Effects of Black Oxide of Manganese. By JOHN COWPER, M.D.,
Professor of Materia Medica, Glasgow.

PROFESSOR COWPER briefly notices several cases of disease which took place among men employed in grinding the black oxide of manganese, to be employed in the manufacture of bleaching powder. These cases seem to show that manganese is an active poison, and that its effects, when slowly introduced, resemble those of mercury and lead. Like these metals, it paralyzes the motor nerves; but it differs from mercury, by first affecting the lower extremities, and by not occasioning tremors of the affected part; and from lead it differs, by not affecting the intestinal canal: thus it gives rise neither to the *tremblement metallique* of the former, nor the *colica pictonum* of the latter. The disease produced by manganese, like that by the other metals, is very permanent and intractable.

British Annals of Medicine, January 13, 1837.

Third Report of Medical Cases treated at St. George's Hospital,
[during the year 1836.] By R. MACLEOD, M.D.

THIS Report is very creditable to the industry and intelligence of the author; and its publication is the more praiseworthy from the fact stated by Dr. Macleod, that he has “not yet had the satisfaction of seeing reports of the results of their practice from any other of the medical officers of the metropolitan hospitals.” The Report contains the histories of some interesting cases and also important practical remarks; but we can find room only for the chief statistical details.

“On the 1st of January, 1836, the patients in the hospital, under my care,

amounted to	.	.	.	.	.	23
There have since been admitted	.	.	.	.	.	254
Total to be accounted for	.	.	.	.	.	277
Of the above cases there have been cured	.	.	.	.	.	168
Relieved	.	.	.	.	.	35
Complaints stationary	.	.	.	.	.	10
Transferred to surgeon	.	.	.	.	.	4
Dead	.	.	.	.	.	38
Remain under treatment	.	.	.	.	.	22
Total	.	.	.	.	.	277

The following table exhibits the ages of the 277 patients treated in 1836, and the number of deaths in each decimal period.

		Deaths.	
	Under 10	5	0
Between	10 and 20	42	3
..	20 .. 30	80	5
..	30 .. 40	67	8
..	40 .. 50	39	6
..	50 .. 60	29	8
..	60 .. 70	12	7
..	70 .. 80	2	1
..	80 .. 90	1	0
Total		277	38

"The increase of mortality with the advance of years is rendered very striking by the above table. Of the five deaths between the ages of 20 and 30, two were from poisoning; and if we deduct these, so as to retain only cases of disease, we have 78 patients yielding but three deaths; whereas, between 60 and 70, of twelve patients, not fewer than seven died—the diseases being, organic affections of the heart, with dropsy, 2; organic affections of the liver, with dropsy, 2; phthisis pulmonalis, 2; bronchitis, 1.

Cerebral Diseases—14.

Apoplexy, with hemiplegia, 3.—Cured, 2; dead, 1.

Hemiplegia, without apoplexy on admission, 4.—Relieved, 1; stationary, 2; dead, 1.

Inflammatory affections of the encephalon, 4.—Cured, 3; dead, 1.

Epilepsy, 2.—Cured, 2.

Mania e potu, 1.—Cured, 1.

Spinal Diseases—6.

Paraplegia, 3.—Cured, 1; relieved, 1; dead, 1.

Paralysis of fore arms, 3.—Relieved, 2; stationary, 1.

Various Nervous Diseases—30.

Hysteria, 17.—Cured, 10; relieved, 5; remaining, 2.

Chorea, 7.—Cured, 6; remaining, 1.

Paralysis agitans, 1.—Much relieved, 1.

Neuralgia, 2.—Cured, 1; relieved, 1.

Hypochondriasis, 3.—Relieved, 2; stationary, 1.

Diseases of Respiratory Organs—35.

Phthisis pulmonalis, 14.—Relieved 8; dead, 6.

Bronchitis, 8.—Cured, 5; dead, 2; under treatment, 1.

Laryngitis, 1.—Cured, 1.

Pulmonitis, 4.—Cured, 3; dead, 1.

Pleuritis, 2.—Cured, 2.

Hæmoptysis, 3.—Cured, 3.

Sloughing abscess of lung, 1.—Dead, 1.

Empyema, 1.—Under treatment, 1.

Hooping cough, 1.—Cured, 1.

Diseases of the Heart and its Appendages—24.

Acute pericarditis, 6.—Cured, 4; relieved, 1; dead, 1.

Various organic diseases of the heart, with dropsy, 16.—Cured (as regards the dropsy), 6; dead, 6; stationary, 1; under treatment, 3.

Organic diseases unaccompanied by dropsy, 2.—Relieved, 1; under treatment, 1.

Diseases of the Fauces—2.

Cynanche tonsillaris, 2; cured, 2.

Diseases of the Abdominal Viscera—51.

Indigestion, without evidence of organic disease, 7.—Cured, 5; relieved, 2.

Ditto, dependent on organic disease, 3.—Stationary, 2; dead, 1.

Hæmatemesis (vicarious), 3.—Cured, 3.

Ditto, from diseased liver, 1.—Dead, 1.

Vomiting and purging (English cholera), 2.—Cured, 2.

Dysentery, 6.—Cured, 3; relieved, 1; under treatment, 1; dead, 1.

Painter's colic, 2.—Cured, 2.

Enteritis, 1.—Cured, 1.

Icterus, 1.—Cured, 1.

Diseases of liver, with more or less of hepatic inflammation, 12.—Cured, 7; relieved, 2; under treatment, 3.

Chronic diseases of liver, with ascites, 13.—Cured, 2; under treatment, 3; stationary, 1; dead, 7.

Diseases of the Kidneys—6.

Nephralgia, 2.—Cured, 1; under treatment, 1.

Organic diseases, with dropsy, 4.—Cured (as regards the dropsy), 2; under treatment, 1; dead, 1.

Diseases of the Uterine System—11.

Hysteritis, 1.—Cured, 1.

Flooding after abortion, 1.—Cured, 1.

Menorrhagia, 4.—Cured, 3; relieved, 1.

Amenorrhœa, 2.—Cured, 1; under treatment, 1.

Ovarian dropsy, 2.—Stationary, 2.

Malignant tumour in pelvis, 1.—Dead, 1.

Diseases of the Articular and Fibrous Systems—56.

Rheumatism (acute), 32.—Cured, 30; under treatment, 2.

Ditto (chronic), 20.—Cured 14; relieved, 6.

Gout, 1.—Cured, 1.

Periostitis, 3.—Cured, 3.

Exanthemata, and Acute Diseases of the Skin—9.

Erysipelas of face and head, 4.—Cured 2; dead, 2.

Scarlatina, 1.—Cured, 1.

Rubeola, 1.—Cured, 1.

Pompholix, 1.—Cured, 1.

Urticaria, 1.—Cured, 1.

Purpura hemorrhagica, with apoplexy, 1.—Dead, 1.

Fevers—23.

Intermittent, 5.—Quotidian 2; tertian, 3; cured, 5.

Continued, 18.—Cured, 16; convalescent, 2.

Dropsy, not apparently connected with Organic Disease—3.

Cured, 2; dead, 1.

Cases of Poisoning—3.

With arsenic, 2.—Dead, 2.

With oxalic acid, 1.—Cured, 1.

Med. Gazette, February 4, 1837.

On Pectoriloquy. By EDWIN HARRISON, M.D.

IN this short communication, Dr. H. points out the importance of defining more carefully than has been done by Laennec and many of his followers, the exact import of the sign Pectoriloquy. He states justly that, in cases of decided tuberculous excavation of the lungs, the voice is *not* always transmitted up the tube of the stethoscope; while, in other cases, where there is no cavity, (as in consolidation of the lung around a large bronchus,) there sometimes is transmission of the voice. Dr. H. is of opinion that the most valuable auscultatory sign of a cavern (as far as regards the voice,) is "the resonance of the voice in a circumscribed space;" "a sensation that the space in which the voice plays is circumscribed; such space not existing naturally in the part of the lung from which the sensation is communicated." We have always been of opinion that the value of pectoriloquy, as a sign

of phthisis, has been overrated; and we think the observation of Mr. Harrison calculated to render it at once more precise and valuable.

Med. Gazette, December 24, 1836.

Remarks on the Nature and Treatment of Rheumatism.

By J. HOPE, M.D. F.R.S.

THE only part of this interesting paper which we shall notice is the *Treatment of the Acute Rheumatism*. Dr. H. reviews the principal plans which have been employed in this disease, viz. 1, the bleeding and purging, or pure antiphlogistic plan; 2, the forced sweating plan; 3, the stimulant plan, (bark, guaiacum, &c.); 4, the colchicum plan; 5, the calomel and opium plan; and gives a decided preference to the last, not, however, as originally proposed by Dr. Hamilton, but as modified (Dr. Hope says,) by Dr. Chambers, of St. George's Hospital. Dr. Hope says he has employed this plan during the last six years in about two hundred cases, and thus details it and its advantages:

"1. *Acute Rheumatism*. After a full venesection, or even two, in the robust, but without bleeding in the feeble and delicate, I give every night gr. vii. to x. of calomel with jss. to ij. of opium, according to the age, and the severity of the case; and every morning a full haust. sennæ, to act four or five times at least. In addition I generally give the following draught, thrice a day, as it has appeared to me to expedite the cure—partly, perhaps, by the additional opiate, and partly by the sedative effect of the colchicum.—R. Vini colch. m. xv. ad xx.; Pulv. Doveri, gr. v.; M. salin. 3x.; Syrupi, 3j. M.

"When the pain and swelling are greatly abated, if not almost gone, (which often happens within two days, and almost always within four,) I omit the calomel; or if the gums become in the slightest degree tender, I omit it even earlier. The opium I continue to the extent of gr. j. or jss. at bed-time; and in severe cases I add a grain at noon; for without an anodyne the pains are apt to recur. I also continue the colchicum draught and the haust. sennæ, as before. No local treatment is necessary beyond warm or cold application, according as the patient finds them agreeable. If the patient is not well in a week I consider it a case of exception; and the exceptions are generally in those who are subject to rheumatism, and who therefore usually have it in a more obstinate chronic form.

"The advantages of this plan are, 1, that a patient is generally sound, well, and fit for work in a week or ten days after the pains have ceased; 2, that the gums are rarely affected, especially if you previously ascertain that the patient has not a morbid susceptibility of mercury; 3, that it is rare to see inflammation of the heart if the treatment is early begun (I think that one case in a dozen would be the maximum in my practice); 4, if the slightest symptom of endo or peri-carditis *does* supervene, a few extra doses of calomel and opium, as gr. v. c. op. gr. j. every four or six hours, will generally affect the constitution in twenty or thirty hours, which, with two or three cuppings or leechings on the region of the heart, almost always places the patient in a state of safety. I have never lost a patient by rheumatic pericarditis since I employed this plan; and I have been told by other hospital practitioners that they have been equally successful by the use of calomel and opium.

"2. *Active Chronic Rheumatism*. Here calomel and opium may be given in smaller doses, as calomel, gr. v. and opium, gr. j. every night; but they require to be continued for a longer time, as five or six nights. Take care, however, to stop short of ptyalism, especially in the scrofulous. Local treatment, too, is more beneficial than in the acute form: viz. bleed locally rather than generally, and ultimately employ blisters, liniments, &c.

"*Trials of Modifications*. I have tested this plan by successively omitting the venesection, the purging, the calomel, and the opium: and with each omission I have found the recovery less expeditious and certain. I cannot doubt that the opium contributes importantly to the cure, perhaps by allaying the pain, and thus—

diminishing the irritative fever dependent on it; or, possibly, by modifying the vital state of the blood: but this is yet hypothetical. I have, however, assured myself of the fact, that opiates and purging alone will cure many cases of acute rheumatism remarkably well."

Med. Gazette, February 25, 1837.

Case of Perforation of the Stomach. By J. C. PARKIN, Surgeon, Bridgewater.

THIS was a case of perforation, occurring in a young woman who had laboured under symptoms of diseased stomach for a year and a half, marked chiefly by pain after eating, particularly if the food was not easily digestible, and the symptom commonly termed *pyrosis*. The most peculiar feature in the case was the very slight effect produced on the system by the local disease of the stomach; the general appearance of the patient, at the time of the accident, being that of a person in perfect health. This is, however, not very uncommon in simple ulceration of the stomach, as was the case here. She survived the rupture about twenty-four hours. The abdominal viscera were found coated with lymph recently effused. The perforation was about half an inch in diameter, about two-thirds distant from the pylorus, and one-third from the œsophagus. The pyloric half of the stomach, besides the large ulcer in which the perforation had occurred, presented numerous smaller ulcerated spots, "as if portions of mucous membrane had been pecked out by a bird."

Lancet, Dec. 3, 1836.

SURGERY.

On the Nature and Treatment of Lupus. By ALEXANDER URE, M.D.

THIS is a valuable practical paper, of which we can only give a brief notice.—Dr. Ure confines the term *Lupus* to two varieties of erosive ulcer; one of which he terms *Erosive ulcer of the derma*, and the other *Erosive ulcer of the follicles*. The first is regarded as symptomatic, being generally dependent on disordered assimilation and nutrition: it is extremely obstinate, resisting all local applications, unless the morbid state of the general system is removed. Powerful escharotics, which are so effective in the other species, effect here merely a temporary suspension of the disease. The second form is more decidedly a local affection, and is readily curable by proper local applications. This variety frequently originates like a catarrhal affection of the Schneiderian membrane, which terminates in erosive ulceration, and eventually leads to perforation of the cartilaginous septum. After a time, the external surface of the nose becomes inflamed, and ulcerates; the ulceration having its seat principally in the sebaceous follicles, and all along preserving the tuberculous character. The dreadful havoc committed by this disease is well known. Dr. Ure says that this form of ulceration is often speedily checked, and the disease permanently cured, by the local use of the chloride of zinc, or a solution of the nitrate of zinc in strong nitric acid. The former is the remedy chiefly used, and is applied in the form of a paste, made with one part of the chloride and two or three parts of the anhydrous sulphate of lime; a modification of Canquoin's formula, originally proposed and introduced into practice by Dr. Ure. (See *Medical Gazette*, Dec. 19, 1835.) One or two applications of the paste will at most suffice to produce a proper eschar; and, when this is detached, the sore, now healthy, is to be treated with water dressing; or, if the surface be very uneven, with narrow strips of adhesive plaster, which are allowed to remain on till they drop off. Three cases illustrative of the successful treatment of this form of *lupus* are given:

1. The disease was of some years' standing, began in the mucous membrane, and progressively spread to the ala. There was tubercular ulceration of the follicles, and the septum was perforated by a large aperture. Many remedies had been tried, but in vain. A thin layer of the gypsum paste was laid over the sore, and, after the removal of the eschar, this healed in fifteen days.

2. Disease of seven years' standing. The ulceration had continued five years, and had destroyed the greater portion of the septum. There was an erosive

tubercular ulcer of the left ala, which was in part eaten away. Numberless remedies, and, among others, iodine and sarsaparilla, had been tried in vain. The chloride-of-zinc paste produced a permanent cicatrix.

3. The disease of two years' standing. Corroding ulcer, of a marked tuberculous character, on the nose: it consisted of a group of irritable-looking tubercles, covered with crusts, with a dark-red hue of the adjacent skin. The cartilaginous septum was perforated, and a portion of the ala destroyed. A thin layer of the gypsum paste was applied, and, in a few weeks after, a healthy cicatrix occupied the site of the ulcer.—In each of these cases, the loss of substance is said to be inconsiderable.

We think the profession much indebted to Dr. Ure for this improvement in the treatment of so unmanageable a disease. *Med. Gazette, Dec. 3, 1836.*

New Mode of Operating for Nævus. By Mr. LISTON.

A CHILD, aged twenty months, was admitted into the North London Hospital, on the 2d of November, with a nævus, of the size of a pigeon's egg, on the face, near the nose. It had gradually increased to its present size, was compressible, and filled speedily on the removal of pressure. On the 7th, Mr. Liston made a crucial incision through the integuments covering the tumour, and carefully dissected back the four flaps, so as completely to expose the tumour. A needle, armed with a double ligature, was then passed through the base of the tumour, and another, in like manner, at right angles to the former. The needles being withdrawn, four ligatures remained, and were successively tied over the tumour, so as to comprehend the whole. Water dressings, at first cold, and afterwards warm, were applied. The case went on favorably, and the report on the 21st (the fourteenth day after the operation,) is, "The whole tumour is now come away, the swelling is abating, and the edges of the integument coming gradually together." *Lancet, Dec. 31, 1836.*

Cure of an Open Cancer of the Breast. By ANDREW BUCHANAN, M.D. Glasgow.

THIS case is so far interesting as affording a proof that a genuine cancer of the mamma admits of being cured, although it supplies no new therapeutic means, nor adds to our confidence in the old: nature seems to be entitled to all the merit of the cure. The opinion of the experienced narrator of the case is quite sufficient to establish the cancerous nature of the disease, if this were not evident from the description given of it. The patient was forty years of age, and had laboured under the disease three years, when admitted into the Glasgow Infirmary, on the 21st January; but ulceration had only taken place a few weeks previously. She was dismissed in the end of March, with increase of the local disease; and this increased for some time afterwards, until the ulcer was "as broad as the mouth of a teacup, and very deep," with an excessively fetid discharge. Some time after this, she was advised to dress it with the common Unguent. Citrin. dil. of the Edinburgh Pharmacopœia; and under this treatment it gradually healed up. When seen in November by Dr. Buchanan, the cicatrix left by the sore was about two inches in diameter, indurated, and quite flat. The surrounding parts seemed quite healthy, but several of the axillary glands were enlarged. The general health was good. The only internal remedy taken by this patient was hydriodic acid (during the early period of the ulceration,) for forty-two days, the total quantity of iodine taken being 2460 grains. *Med. Gazette, Dec. 17, 1836.*

Gangrene of the Leg from Disease of the Heart. By W. CLARK, Esq., Surgeon, Devizes.

THIS is an interesting and curious case, the outlines of which we can only give: A woman, æt. 50, the subject of valvular disease of the heart with dilated auricles, got out of bed at night in a profuse perspiration, went down stairs, and, in

opening the door of her house, placed her right heel on the damp brick floor. On the following morning, she was seized with severe pain in the right foot, darting upwards to the thigh, which was soon followed by loss of sensation and coldness. Next day, the limb was of a leaden hue, still cold and senseless, and no pulsation could be felt in the popliteal or posterior tibial arteries; but slight action in the femoral, under Poupart's ligament. Vesications appeared on the third day; a line of demarcation on the sixth; but the gangrene proceeded unchecked, and the woman died on the fifteenth day. A singular circumstance was observed during the progress of the mortification,—viz. the repeated change in colour of the limb, from the usual leaden, livid hue, to a bright scarlet, without any increase of temperature. On dissection, besides the primary disease of the heart, there was found a somewhat peculiar condition of the vessels of the lower extremities. The common iliac artery on both sides was small, not larger than the axillary; and the femoral not larger than an ordinary brachial. The femoral artery of the diseased limb was found gradually tapered downwards, until its cavity became obliterated above the part where the sloughing commenced; the coats being perfectly healthy. Both the iliac and femoral veins were unusually large; at least double their natural caliber. Mr. Clark thinks the smallness of the arteries may be accounted an auxiliary predisposing cause of the gangrene. *Med. Gazette, Feb. 11, 1837.*

On the Treatment of Erysipelas by Bandaging. By JAMES ALLAN, Esq.

IN this short communication the author advances nothing new; but we think the profession much indebted to him for recalling attention to a practice which we regard as of much practical importance, and which is much less practised than it ought to be. We are convinced that the principle of *pressure* to inflamed parts is capable of more extensive application than it has hitherto received. A striking instance of its value in a disease to which it had not been previously applied, was recently communicated in this Journal, (see Dr. Fricke, on the Treatment of Orchitis, vol. ii. p. 253;) and we observe in recent periodical works several practical testimonies in its favour. Mr. Allan relates three cases,—two of erysipelas in the lower extremities, and one in the face; in all of which the application of the bandage was of speedy and permanent benefit; the pain caused by it being of very short duration. He also informs us that he has found bandages of very great service in removing the pain and swelling of joints which have been affected with acute rheumatism, after the reduction of the acuter degree of inflammation.

British Annals of Medicine, Jan. 27, 1837.

Surgical Report of Cases treated in the Glasgow Royal Infirmary, from the 1st May, 1835, to the 1st August, 1836. By JOHN MACFARLANE, M.D., Senior Surgeon.

THIS very valuable Report, which may serve as a model for similar documents, extends to upwards of fifty pages, and contains numerous interesting cases, with observations on the following subjects: 1. Dislocations; 2. Fractures; 3. Injuries of the head; 4. Abscess of the tibia; 5. Carcinoma; 6. Medullary sarcoma; 7. Fungus of the antrum; 8. Epulis; 9. Excision of the elbow-joint; 10. Aneurism; 11. Hernia; 12. Lithotomy; 13. Lumbar abscess; 14. Polypus of the rectum; 15. Secondary hemorrhage; 16. Traumatic phlebitis, and purulent deposits. We regret much that we cannot transfer to our pages more of the interesting practical matter with which this paper abounds: we must content ourselves with a brief extract from one or two of the sections.

Carcinoma. “Dr. Macfarlane justly laments the want of more extensive and accurate investigations respecting the results of operations for this disease, as it is only by this means that we can appreciate the chances of success from surgical interference. He is of opinion that, when this disease affects the mamma, whether involving the whole gland or in the form of tubercle, it is rarely that an operation proves ultimately successful. He says that, for some years past, he has made

enquiries on the subject regarding his own cases or those of others; and the result has been very unsatisfactory. He has ascertained the termination of upwards of thirty cases, fourteen of which were operated on by himself; and in all, with one exception, the disease returned in a period varying from a few months to about three years. Some of these were exceedingly favorable, the disease being recent, and the adjoining lymphatic glands unaffected; yet it returned in almost every case, either in the axilla, near the old cicatrix, in some internal organ, or in one of the long bones; most frequently the former. We apprehend the experience of most surgeons, who are careful not to confound carcinoma with other diseases, will corroborate the results obtained by Dr. Macfarlane.

Epyulis. "There are two varieties of this disease met with in practice; one simple or benign, and the other malignant. The former is small and defined, being seldom larger than a walnut, of a firm texture, and more or less pedunculated. It begins in the gum, frequently after abscess of the part, and but rarely affects the bone; and, as it increases, which it does very slowly, from being covered with a smooth membrane, it becomes granular on the surface. Its base is seldom large, even where the disease has been of long duration; and the tumour occasionally bleeds a little, but is attended with little or no pain. On its being removed by the knife or ligature, it may be repeatedly reproduced, unless the surface from which it springs be destroyed by the caustery or caustic; and, in general, the secondary and subsequent growths are more rapid in their formation, and of a softer texture, than the original tumour. The second variety is evidently malignant: it begins in the gum, at the root of one of the teeth, in the form of a small, ill-defined, spongy, and purple-coloured tubercle; it extends rapidly along the soft parts, which become swollen, vascular, and lobulated, loosening the teeth, dipping into the alveolar processes, involving the bone and palate, and often giving rise to profuse fetid discharge and to hemorrhage. It may extend over the entire jaw-bone, and among the bones of the face, so as to impede mastication and deglutition, contaminate the absorbent glands, and produce distressing deformity. In some cases the tumour possesses a sarcomatous hardness, and remains so throughout its progress; and in others it is soft and spongy; but in all, as it increases, it becomes more irregular on the surface, more fungoid in appearance, and firmer in texture.

Excision of the Elbow-joint. "The prejudice so long entertained against this operation is now yielding to the daily increasing number of cases in which it has proved successful, not only in removing the disease, but in preserving useful limbs. Although not a difficult, it is certainly a tedious and painful operation. The wound is extensive, and, from the disease of the soft parts generally present, profuse suppuration sometimes ensues. The cure is therefore protracted, and months must elapse before the functions of the arm are restored. In very unfavorable states of the system, some of these objections may perhaps warrant us in preferring amputation; but, in cases at all favorable, when the disease is confined to the articulation, and the system is able to bear the shock of the operation, and, it may be, the subsequent profuse discharges, we are not only warranted, but, I think, imperatively called upon, on account of the remote advantages it holds out, to have recourse to excision.

"In children, after excision, the parts sooner accommodate themselves to the loss which has been sustained, and the limb thus preserved sooner regains its strength and usefulness, than in adults. But, even in the latter class of cases, the ultimate success of the operation is also undoubted."

Edinburgh Journal, Jan. 1837.

On the Treatment of Hydrocele by Acupuncture. By D. LEWIS.

In the *Lancet* of May 7th, 1836, Mr. Lewis communicated the interesting and important fact, that hydrocele might be cured by a single puncture with a fine needle. He says "a drop of fluid oozes out on withdrawing the needle, and in three days the swelling will completely disappear, no matter in what quantity the fluid may have been collected." It appears that the effect of the operation is not

to evacuate the fluid through the puncture, but to cause its absorption. He informs us that, out of upwards of fifty cases, there has not been a single instance of failure, nor any consecutive inflammation. It appears that this mode of treatment is applicable to other cases of circumscribed dropsy; and Mr. Lewis informs us, that Dr. Thomas Davies finds it successful in removing fluids from the chest. Mr. L. says that the needle used in this operation "cannot be too fine, provided it be strong enough to penetrate through the integuments; for, the smaller the puncture, the less pain and inflammation ensue."

Lancet, January 14, 1837.

Account of a Method of Operating for Hydrocele.

By BENJAMIN TRAVERS, Esq.

THIS is essentially the same operation described in the preceding extract, but somewhat modified. The following is Mr. Travers's own account of his mode of proceeding, and the result of his experience of the practice.

"In the spring of 1836 I commenced the practice of the operation; first, making a single puncture with a trochar; secondly, with a fine sharp-pointed probe; thirdly, with an acupuncture needle of the largest size; and then planting several punctures at equal distances, according to the bulk of the hydrocele. A drop or two of fluid escaping at the several needle orifices, a rag dipped in cold lotion was laid on the part, and the general result was more or less œdema of the scrotum, and in three days a total disappearance of the swelling. I soon ascertained that it was not by adhesive or any other mode of inflammation that the change was effected, but that the tunica vaginalis was left perfectly free and natural in its relation to the testis, and the scrotum of its proper weight, size, and figure, so that relapse was more to be apprehended. I was at first impressed with the idea that the tense condition of the tunic was essential to the curative effects of the puncture, and thus explained the difference of result from that obtained by complete evacuation and collapse of the sac. But this opinion I have had occasion to modify, finding that a freer discharge than could be obtained by the round needle, and the consequent partial collapse of the sac, was on the contrary more immediately and certainly productive of the infiltration of the cellular membrane, and consequent absorption of the fluid. I have therefore since employed a very fine trochar, smaller than any in common use, as the preferable instrument. My mode of proceeding is to put the scrotum on the stretch, in front of the testis, by embracing it with the extended thumb and fore-finger of the left hand; and placing the patient opposite a window on which the sun falls, or at all events a strong light, I command the view of the transparent bag so perfectly as to avoid veins and any point of accidental adhesion or thickening, which is always marked by a corresponding opacity. The punctures are made in a perpendicular direction and in quick succession, about equi-distant from each other, while the tunic is kept tense by graduated compression. Of several cases thus treated some have remained cured; others, apparently cured, have relapsed after a fortnight or three weeks, and one after three months; but I do not consider this a fair criterion of the value of the practice, because from the shape and size of the acupuncture needles chiefly used in these cases, the points on which I believe the success of the operation mainly depends were not accomplished. These are, a freer collapse of the sac by the removal of a sufficient portion of the fluid which the trochar puncture ensures, and the more complete diffusion of the remainder into the surrounding cremaster and cellular tunics, obtained by the multiplication of the punctures, while the tension of the sac is preserved. On the third day the fluid is absorbed, and the two sides of the scrotum are uniform: indeed, this is sometimes the case on the second day; but if the punctures are so small as not at once sensibly to reduce the bulk of the swelling, a single drop only exuding at each orifice, the reduction is generally much slower, or even fails altogether.

Med. Gazette, February 11, 1837.

MR. TRAVERS imagined that he had anticipated Mr. Lewis in this mode of treating hydrocele; as he says he first conceived the idea of it in 1835, and mentioned it in his surgical course of lectures, previously to the publication of Mr. Lewis's first letter. In a subsequent communication in the *Lancet* of February 18th, Mr. Lewis informs us that he had performed the operation two years before the time mentioned by Mr. Travers. However, a letter in the *Medical Gazette* of the same date, from Mr. Keate, of Albemarle street, deprives both these gentlemen of the honour of having first employed this practice. The following extract from Mr. K.'s communication leaves no doubt on this head.

"While I do not mean to intimate any doubt of the same ideas having occurred to each of these gentlemen without any knowledge of the other's theory or practice, or of any previous operation of the kind, I trust it will not be offensive to either of them if I assure you that the plan and the practice have been known and acted on for very many years by myself, and I dare say by others. By one other person I know it was performed I dare say twenty years ago, namely, by a friend of mine, who for some years practised as a physician in this town, and is now living in retirement in the country. This gentleman performed the operation on *himself*, as he was nervous about the injection, and fancied, as he said, that if he could convert ascites into anasarca, absorption from the cellular structure might cure the malady; and in his own case it was perfectly successful. At his suggestion I tried it frequently, both at the hospital and in private practice; sometimes successfully, but more frequently the collection of fluid in the sac returned, and I generally found the patients impatient of the numerous punctures, and of the time required for the absorption. I remember talking to Sir Astley Cooper on the subject, and, as far as my recollection serves me, the plan appeared not to be new to him."

Med. Gazette, February 18, 1837.

On Hydriodate of Potash in Secondary Syphilis. By H. BULLOCK, M.R.C.S.

MR. BULLOCK has reported the particulars of eleven cases of secondary syphilitic diseases, of a formidable character, relieved by hydriodate of potash, administered internally, in doses of eight grains three times daily, in camphor mixture. The symptoms were—destruction of the uvula and soft palate, or nodes, with nocturnal pains, on the tibia, ulna, frontal, and malar bones; and affection of the bones of the nose, or rupia and other tubercular eruptions. The period of cure was from one to two months. The patients were treated by Dr. Williams, at St. Thomas's Hospital. They were all adult males.

Edinburgh Med. and Surg. Journal, Jan. 2, 1837.

Extirpation of an Inverted Uterus. By W. Moss, Esq., Windsor.

THIS was a case of complete eversion following delivery, six years previously, and at the period of the operation the organ was entirely protruded from the vagina. The operation was attempted to be performed in the first place by ligature; Indian twist, whip-cord, gimp, and wire being successively used. Much pain and irritation, with nausea, &c., ensued from the use of the different ligatures; which, however, were persevered in, being occasionally tightened and relaxed according as they could be borne, until the twentieth day, when the remaining portion of the neck of the uterus was cut through with the knife; the organ having shrivelled to half its original size under the use of the ligatures, and, when removed, weighed seven ounces. There was a good deal of hemorrhage, and several arteries required to be secured. Although, during the progress of the cure, there was protrusion of the intestines per vaginam, and other distressing accidents, the woman was so well as to go to work about twenty days after the excision of the uterus. She still, however, continued subject to incontinence of urine, and required to wear a pessary, to prevent protrusion of the intestines.—Query: Would it not have been better to

have employed excision in the first instance, and so have saved all the distress of the attempts with the ligature? *Lancet, Dec. 3, 1836.*

Unusual State of the Contents of the Hernial Sac. By HENRY TAYNTON, Esq.

IN a case of chronic inguinal hernia, which had been strangulated about thirty-six hours, and which could not be reduced, Mr. Taynton found, on exposing the sac in the operation, considerable difficulty "in pinching up a portion for the purpose of dividing it, on account of its great tenseness." "An opening being made, (continues Mr. T.,) about four ounces of serum gushed out. When the sac was laid open, a large mass of coagulable lymph presented itself, having the appearance of calf's-foot jelly, only of a darker colour, not adherent, and which totally concealed the protruded intestine. This jelly-like substance, which formed the bulk of the tumour, being removed in one large mass, a moderately-sized knuckle of intestine was observed, in a highly vascular state, with laminae of lymph adhering to it, of the same colour as that contained in the sac. The sac itself was quite free from inflammation. The stricture being divided, the operation was completed in the usual manner." The man recovered.

Med. Gazette, Jan. 21, 1837.

On Union of Fractures of the Patella. By GEORGE GULLIVER, Assistant Surgeon to the Forces.

MR. GULLIVER gives two cases of bony union of fracture of the patella in the human subject. The first was the case of a sailor, who fell on his knee from the maintop of a brig: the second was that of a soldier, whose patella was fractured by a gun-shot. Mr. G. has also related a series of experiments on rabbits and dogs: he broke the patella in two ways: first, by blows, so as not to divide the aponeurosis which covers it, and in such cases the union was osseous; and secondly, by cutting the bone and aponeurosis in two with cutting forceps, and in these cases no bony union took place. His conclusions are, that, when the aponeurosis is completely divided, as in fractures of the patella from muscular violence, bony union is not to be expected; for in such cases it is impossible to keep the fragments in accurate contact; and that osseous union is simply the effect of immovable coaptation of the fragments, the provision for which, in certain forms of fracture, (as from external violence, as falls on the knee and gun-shot and incised wounds,) is the integrity of the aponeurosis in front of the bone.

Edinburgh Medical and Surgical Journal, Jan. 1837.

Case of Scalded Glottis. By GEORGE FAYRER, Surgeon, of Barking.

THIS accident, which occurred in the usual manner, by the child (æt. seven,) attempting to drink from the spout of a tea-kettle, was treated according to the plan originally suggested by Mr. Wallace, of Dublin, and was speedily cured. Two grains of calomel were given every hour, and two minims of laudanum every two hours. On the third day the calomel showed its specific effect on the mouth, and the child speedily got well.

Lancet, Feb. 11, 1837.

MIDWIFERY.

Two Cases of complete Recovery from Laceration of the Posterior Part of the Vagina and Cervix Uteri. By J. TOOGOON, Esq., Surgeon to the Bridgewater Infirmary.

THESE cases are interesting, from the rareness of recovery after such an accident. They are related with commendable brevity. In the first case there was "very extensive laceration of the posterior part of the vagina, which extended to the

cervix uteri:" both Mr. T. and another surgeon, believing the case hopeless, "passed the hand freely through a large rent into the cavity of the abdomen, and felt the different viscera distinctly, and the abdominal aorta." Although given up, this woman gradually and rapidly recovered. Mr. T. is disposed to attribute the recovery to the great attention paid to the case, and to the *omission* of bloodletting on the accession of reaction with abdominal pain, &c. He was so satisfied that the loss of even a small quantity of blood, although attended perhaps with immediate relief, would in all probability have been fatal, that he "determined to trust to opium, cordials, nourishment, and perfect quiet;" and the result seemed to justify the treatment.

In the second case, there was also "a considerable laceration of the posterior part of the vagina, in which the cervix uteri was involved, and the intestines were lying in the vagina." The treatment is not given in detail, but it would appear that large opiates were the early remedies depended on. This patient also completely recovered.

British Annals of Medicine, Jan. 20, 1837.

MEDICAL STATISTICS.

1. *On a Method of determining the Danger and the mean future Duration of Diseases at different Periods of their Progress.*
2. *On the Law of Recovery and Dying in Small-Pox.* By WILLIAM FARR, Esq.

THESE two papers are on subjects of no less difficulty than importance, and seem to open a path of extreme interest in medical science, but which, we fear, can be trodden at present by few but the learned author. As any extracts from these memoirs cannot give a just idea of their value, and as we doubt our own capacity to do them justice in the form of an abstract, we must content ourselves by giving, from the first paper, a brief note of the early steps in the process, referring our readers for its complete development to the original.

It is an ascertained fact, that, when large numbers of patients are considered in the same circumstances, nearly an equal proportion will invariably die; that, if, out of 5000 patients labouring under fever, 500 die at one time and 4500 recover, nearly the same proportion of similar cases will perish at another time.

At the origin of the disease, the mean possibility of recovery would be, in the instance cited, as 4,500 to 500; for 4,500 would recover, and 500 would die: or, in other words, out of 5,000 chances, 500 would be in favour of death, 4,500 in favour of recovery. Where the mortality in a disease is ten per cent., it is nine to one in favour of recovery; the probability of recovery is expressed by the decimal .9, or by the vulgar fraction $\frac{9}{10}$.

This principle holds at every period of the disease: if it be known that, of the patients who survive the twentieth day, 3,268 recover, 300 die, the chance of recovery at the end of the twentieth day is as 3,268 to 300, &c.

By a very simple enumeration and arrangement, the number that survive, die, or recover after every day,—every fifth, tenth, or any other day,—can be determined. For example, it was ascertained that, out of 4,915 cases of small-pox, at the end of five complete days, 149 died in the next five days, or between the fifth and tenth day: consequently, only 4,766 cases remained at the end of ten complete days; and of these 4,766 cases, 1,452 terminated fatally. There were 4,766 chances at the end of the tenth day; 1,452 in favour of death, and the rest, 3,314, in favour of recovery. The first step in the enquiry, therefore, is to determine, from a proper registry, the number of cases terminating every five days, (a day, week, or any other period, may be employed,) distinguishing the fatal from the other cases. This is done in Table II. of the present article.

British Annals of Medicine, Jan. 20th and Feb. 3d, 1837.

MEDICAL JURISPRUDENCE.

On the Morbid Appearances in Death by Drowning. By W. OGSTON, M.D.
Aberdeen.

DR. OGSTON has endeavoured to estimate, by the numerical method, the characteristic signs and morbid appearances of seventeen cases of death by drowning, which came under his notice, during the last six years, in police practice. The bodies were examined in seven cases. The following are the principal results and remarks:

1. The only phenomena which were all but universal, were dilated pupils, clenched jaws, and semi-contracted fingers and thumbs.
2. There was commonly at first paleness of the face, which, after a longer or shorter interval, became livid.
3. Striking calmness and placidity of the features.
4. Excoriation at the ends of the fingers, and dirt or sand under the nails, which have been laid down as frequent marks of death by drowning, were not met with.
5. The tip of the tongue was usually found in accurate contact with the incisor teeth; in two instances included between the closed jaws, but not wounded.
6. In seven cases only was there froth about the mouth; an appearance on which much stress has been laid.
7. Froth was met with in the mouth in two cases only of those dissected; and in three only in the trachea.
8. Liquidity of the blood has been remarked; in five of the bodies examined, coagulated blood was found in the heart, though the great mass of blood was fluid.
9. Water was found in the stomach in almost all the cases examined.

M. Devergie has lately endeavoured to show that, by certain appearances, the time may be determined which has elapsed since submersion: as might be expected, Dr. Ogston's cases do not confirm M. Devergie's statements.

Edinburgh Med. and Surg. Journal, Jan. 1837.

TOXICOLOGY.

On the Poisonous Effects of the Berries of the Yew. By S. HURT, Esq.
Mansfield.

THIS, as Mr. Hurt justly observes, is a very important case, inasmuch as there exists such discrepancy among the writers on botany and materia medica respecting the poisonous qualities of yew-berries. In the present case there can be scarcely a doubt that death was produced by them, although several other children that ate of the same escaped, and many instances can be adduced of their harmlessness. Five little children were seen under a yew-tree, about eleven o'clock; they returned home a little after twelve, and, while at dinner, one of them, three and a half years old, became sick and vomited, bringing up with its food some portions of yew-berries; convulsions followed, and it died before Mr. Hurt saw it, about two o'clock. The lips were observed to be purplish, and the pupils much dilated. Two days afterwards the body was examined. Purple spots existed on the breast, abdomen, and anterior parts of the legs and arms. The pupils had become much more contracted. The stomach contained, besides potatoes, much mucus and some masticated berries (pulp and seeds) of the yew. There were several red patches on the stomach, and the mucous membrane covering them was quite soft. Mr. Hurt conjectures that the poison resides in the seeds, and is only effectual when these are masticated or so broken as that their substance may come in immediate contact with the stomach.

Lancet, Dec. 10, 1836.

PART FIFTH.

Medical Intelligence.

ON THE PRESENT STATE OF MEDICINE IN DENMARK;

By C. OTTO, M.D., Professor of Medicine in the University of Copenhagen.

SECOND REPORT.

ON THE PUBLIC HOSPITALS, CHARITIES, &c. IN COPENHAGEN.

THE capital of Denmark, partly through the liberality of the government, and partly through the charity of private individuals, is so well provided with institutions for the support and relief of the poor and the sick, that it may with justice be said to equal, and even excel, most other large cities in this respect.

1. THE ROYAL FREDERICK'S HOSPITAL.

This hospital, which owes its origin to the beneficence of King Frederick the Fifth, is situated in an airy part of the town, near the harbour. It was founded in the year 1751, but not completed until 1757. It is supported by different endowments, 'made at different times by opulent private citizens, and its capital at the present moment amounts to about 100,000*l*. The buildings of the hospital form a large square, including a court, with the fronts on two sides facing two different streets. To the place and manner in which it has been built, as well as to many of the arrangements, certainly much may be objected. It is situated in a low and humid locality, and the court between the buildings is too small, so that the air can have no free access; an evil which is further increased by trees, with which the space is filled. The two sides of the square in which the wards are, have only one story, and even this is a ground floor, without any cellars below. The wards themselves are of different sizes; some being no less than thirty-seven and three-quarters yards in length, and nine yards broad; others are only one-third part so long; of all, the height is six yards. Most of the wards are so badly arranged, that the only entrance into them is through other wards. There are no particular rooms for convalescents, except for the fever patients; no particular refectories; no rooms where the patients are received, nor places for drying quickly the linen of the patients. The beds (which are of wood) are of different sizes, without curtains, but provided with moveable screens.

Notwithstanding these and other faults, when we consider the remote period at which the hospital was built, it must, upon the whole, be considered a good one, and it is certainly well managed. As to cleanliness, ventilation, &c., nothing can now be objected to it.

The hospital has a separate building for warm, cold, shower, and Russian vapour baths; a very good dissecting room, and an excellent operating room. In both the side buildings, turning into the yard, are the wards for the poorer patients; on the one side the medical, on the other the surgical. The fever wards are in the middle buildings; and particular rooms for single patients, who can pay for their accommodation, are distributed in those parts of the buildings that front the streets.

According to the charter granted to the hospital in 1756, it was destined to receive poor and indigent patients who get no support from other benevolent

institutions, and whose diseases are not deemed incurable; but, according to a later rescript, in 1772, now also such patients are admitted who are able to pay; the fine paid being different according to the bed, the diet, &c. It is, however, never sufficient to indemnify the institution: it is usually six shillings per week. Incurable patients are never admitted; neither are patients received with the venereal disease, the small-pox, insanity, &c., nor children under the age of seven years. The hospital can contain 350 patients, and the average number of sick who receive relief in it amounts annually to about 3000.

When anybody wishes to be admitted into the hospital, he must be announced at the office of the inspector of the institution, where he either is to deliver a certificate of being indigent, from one of the overseers of the poor, or a signed verification from some other known and trustworthy person, that the requisite money will be paid for the maintenance of the patient in the hospital. The candidate is then visited the same day or the next, according to his disease, at his home, by one of the medical or surgical assistants of the hospital; and, if he is not affected with any disease that excludes him, he is immediately received, if there be a vacant bed.

The medical officers are as follows:—1. The chief physician, (at present Dr. O. Bang,) professor of therapeutics at the university.) 2. The chief surgeon, (at present Mr. G. Möller, adjunct at the College of Surgeons.) They are only appointed for six years, receive a royal salary of 800 dollars (80*l.*) and have free lodging in the hospital; their period of office may nevertheless be protracted, and it commonly is so. 3. A physician of reserve. 4. A surgeon of reserve, who is chosen by turns out of the young lecturers at the College of Surgeons. These two last-mentioned officers only keep their office during two years. 5. Four medical, and, 6. Four surgical assistants, (called “candidates,”) who also lodge in the hospital, and are appointed for four years. An apothecary also lives in the hospital.

All students are allowed to enter their names with the chief physician or the surgeon as “volontiers;” and, as such, not only attend his visits at the wards, but take often an active part in the treatment of the patients, and in the keeping of the journals, under the superintendence of the physician or the surgeon. Every other student, however, has a free admission to the patients during the public visits of the medical officers, which are every morning between seven and eight, and every afternoon between four and five. Most of the students obtain in this manner their practical education at this hospital, without even the least expense to them. Journals of the history and treatment of the diseases are carefully kept *in duplo*; and the bodies of those dying in the hospitals are for the most part examined, the permission of the relations being always obtained, as no prejudice against such examinations exists amongst the Danish people. The annual mortality of the hospital is one in eleven or twelve.

With this hospital a medical and surgical clinic are combined. The medical, by Professor Bang, (every Wednesday and Saturday, from three to four,) is very instructive. One of the students, or the professor himself, examines the patient who has been admitted, and remarks are then made upon the disease. Every course of the clinic begins with a clinical lecture. The surgical clinic, by Professor Möller, (Monday, Wednesday, and Saturday, from nine to ten,) is also very instructive.

II. THE GENERAL HOSPITAL, (“*Almindelig Hospital.*”)

This hospital is situated in an airy part of the town, in the neighbourhood of the Frederick’s Hospital, and is supported from the poor-fund and by legacies. It is not only an hospital for patients, but also an almshouse. The patients in the Hospital are of course separated from the members of the Almshouse. The number of beds for the sick is now four hundred, and all such poor patients who cannot be admitted into the Frederick’s Hospital on account of their dis-

ease are received here; and also many who can pay for their maintenance. The manner of announcing, visiting, and admitting the patients, is the same as at the Frederick's Hospital.

The wards are twenty-three in number, the largest with eighteen beds, some with sixteen, twelve, ten, some with only six; they are much better arranged here than in the other hospital. They are distributed in the upper stories, of which there are four, and all open on lobbies; so that no ward is in a direct communication with another. The wards themselves, furnished with a water-closet, are spacious, very high, and excellently ventilated; the beds (here also of wood,) have a sufficient space between them, and are without curtains, but provided with moveable screens. There are particular fever-wards, and particular wards for itch-patients and for contagious diseases. There are separate rooms for women affected with syphilis. There are airy courts for the exercise of convalescents, and cold and warm sulphur baths. There are also ovens, in which the clothes of patients infected with contagious diseases are cleansed. For the many patients attacked by cutaneous diseases who seek relief in the hospital, there is a floating raft of timber, with covered cells, on the sea behind the hospital, where sea-baths daily are administered in the summer time.

More than two thousand patients are annually admitted into this hospital, and the mortality is from seven to eight in the hundred. The medicines for the wards are supplied from a dispensary in the hospital itself, which likewise furnishes all the poor in the town with medicines and treatment gratuitously. The great regard that is paid to the comfort and conveniences of the sick poor admitted into this hospital is proved by the following notice, printed in the Danish, German, French, and English languages, and hung up in all the wards: "The chief physician, who visits the wards daily, begs to be informed, when on his visits, not only of the state of the patients, but likewise, *without restraint*, of every thing the patients deem necessary to relieve their sufferings, or render their condition more comfortable. They are also to inform him if any deficiency is experienced in regard to nourishment, cleanliness, attendance, or care. Notice will be taken of every complaint that is sufficiently grounded, and the fault or faults will be instantly rectified."

The officers of this hospital are the following: 1. A chief physician, (Prof. Wendt, who also is staff-surgeon to the Danish army.) 2. A chief surgeon, (Prof. R. Thal.) 3. A physician of reserve. 4. A surgeon of reserve; and 5. Four medical and four surgical assistants, called "candidates." To Prof. Wendt the hospital owes many obligations for his improvements in the manner of ventilating the wards, for many new accommodations for the patients, &c. He continues to labour zealously in his office, and, having made it a rule to open every dead body, he will, on some future occasion, be able to lay before the medical public a valuable collection of pathological facts. Three years ago he published a good description of the hospital, in Danish, with plates.

The ALMSHOUSE in this institution consists of twelve rooms; two of which are for twenty, the others for twenty-four persons each. At the present moment there are about eight hundred indigent and old persons in the house, of whom 250 are males and 550 females. Every one has his own bed and a sufficiently large repository for his small comforts. The weakest individuals lodge in the lower stories, that they may more conveniently get into the court to enjoy the fresh air. They get a dinner and a pound of bread daily; and the payment for what work they are able to perform comes to them. Nevertheless they are obliged to do what is wanted in the hospital; as, for instance, to wash the linen, to cleanse the staircases and rooms, &c. There are rooms set apart for spinning, and one for picking oakum. The inmates of the Almshouse are only allowed to walk into the town on Sundays and other holidays.

III. THE NAVAL HOSPITAL.

This is a very fine and comfortable building, opened in the year 1806, and situated in "Nyboder," or that part of the town where all the inferior naval

officers and sailors live. This hospital affords medical and surgical assistance only to the sailors and the workmen and mechanics belonging to the royal dock-yard, and to some of the wives and the children of the sailors of the royal navy. From thirteen to sixteen hundred patients are annually treated here. As all the sailors are divided into two divisions, there are also two surgeons for them, Dr. Winckler and Dr. Mansa. Each treats the patients of his own division in the hospital, and each has a surgeon of reserve. Those sick sailors who suffer from a slight disease, or cannot be received into the hospital, are treated in their own houses, free of expense, by two other surgeons of reserve.

IV. THE LAZARETTO OF THE NAVY, (*Söquesthuset*.)

This establishment is independent of the last, although belonging to the navy. It is situated in a different part of the town, (Christianshaven,) and is a fine spacious building. It was founded in the reign of Frederick the Third. It is exclusively appropriated for wounded and maimed sailors during war. There is sufficient space for one thousand beds, and the whole medical and surgical stores, which fortunately escaped the rapacious hands of the English in 1807, are kept here. At the present time it is not used as a hospital. During the late epidemics of the small-pox, and while quarantine was observed, all the patients affected with it were brought here. A part of the building is now used as a prison.

V. THE MILITARY HOSPITAL.

This is situated in an isolated and airy part of the town, and is appropriated as an asylum for sick and wounded officers and soldiers in the Danish army, and for the sick wives and children of the soldiers. Of officers, only lieutenants and staff-captains are received. Over the entrance is a Danish inscription, as follows: "Frederick the Sixth, in the year 1817, caused this building, which was erected by his royal ancestor, to be converted into a military hospital." A rich Jew, Mr. A. Meyer, bequeathed about three thousand pounds to this hospital. From four to five thousand patients are annually treated in it, and the men of every regiment by their own army-surgeons. The wards are spacious and well ventilated; the court-yard very large; and the whole establishment is excellently arranged for the comfort and convenience of the officers.

VI. THE HOSPITAL OF THE CIVIL PENITENTIARY.

This establishment consists of a particular building in the House of Correction. In the arrangement of the wards, of which there are eight, and the other conveniences commonly found in hospitals, this hospital is not inferior to any one. About one thousand patients are treated here annually. The writer of this Report is physician to the hospital, and intends in another article, destined for this Journal, to enlarge upon the diseases of prisoners in general, and of the Danish ones in particular; and he then will have a better opportunity of making the readers acquainted with this hospital.

VII. THE LYING-IN HOSPITAL.

The Danish nation is greatly indebted to King Frederick the Fifth, who founded this hospital in 1750, which really is one of the most celebrated hospitals of this sort in Europe. It is situated in the same street as the General Hospital, and opposite to it. It is supported by royal beneficence, and by several considerable bequests, particularly of one of the queen-dowager, Juliane Maria. The hospital is appropriated to three uses: 1, to receive unmarried and also a certain number of married women, either gratuitously or for payment; 2, to instruct midwives and accoucheurs in practical midwifery; 3, to provide for all the children of unmarried people, when the mothers either will not or cannot themselves take care of them.

The number of those who are born in the hospital is annually about one

thousand, being a third part of the whole births in the town! The lying-in women have all possible comforts, and fifty can enjoy them at the same time, although commonly about thirty only are to be found there at once. Those who do not pay for their maintenance while in the house, are as one to five of those who pay. In order to prevent infanticides, all unmarried pregnant women, when they are about to be delivered, are bound to seek admission into the hospital.

This hospital surpasses in utility all other similar institutions in Europe. All women who wish to practise as midwives must be educated here, and thirty-six of such (of which number twenty-four do not pay,) obtain here annually all the necessary practical instruction by a midwife who lives in the hospital, and by the chief physician of it, the celebrated Professor T. S. Saxtorph, who gives lectures to them adapted to their understanding. After the lapse of the year they are examined by Prof. Saxtorph, the physician of reserve, and the town physician; and it is only after having been found sufficiently qualified that they are allowed to practise midwifery in Denmark, and this only under certain restrictions. They are always bound to call in a physician and surgeon, (all such practise midwifery,) whenever a delivery is very difficult, and an operation, manual or instrumental, is required. But the hospital is also appropriated to gratuitous practical education in midwifery, of physicians and surgeons. Four students (two examined at the Medical Faculty and two at the College of Surgeons,) are always studying here practical midwifery during four months, (there are, of consequence, twelve students every year,) during which time they have free lodging in the house, partake in the examinations, and attend at the delivery of all the women, and perform the instrumental operations that are deemed necessary. They are also very often sent for to execute difficult deliveries in the town, (on which occasions two always go together, the eldest and the youngest,) so that they never leave the hospital without having officiated in many difficult deliveries, and performed numerous obstetrical operations. I have not seen, during all my medical travels through Europe, such an excellent school as this for practical midwifery, where the student can get instructed with such facility, and without any expense, in this important branch of our art.

The hospital may also be considered as a foundling hospital, in taking care of the children left by their parents, until they can be brought into another charitable institution appropriated to the education of orphans or friendless children.—The chief physician is Prof. T. S. Saxtorph, and the physician of reserve, Prof. Aschroch, who both have a magnificent lodging in the hospital, free of expense.

VIII. ST. JOHN'S HOSPITAL.

This hospital, commonly called "*Bidstrupgaard*," is the only house for lunatics for Zealand and the islands, although there are similar smaller ones in several of the minor towns. It is not in Copenhagen, but situated twenty English miles distant from it, and two miles from Rotschild, near Issetjorden, on the sea-coast. It possesses one of the finest landscapes, and a fine park adorned with woods. We feel it a duty incumbent upon us to give a full description of this hospital, that the medical public abroad may be able to judge of what is done in Denmark for the relief and cure of the insane; a subject which still, in our enlightened times, is very much neglected in many countries.

The St. John's Hospital consists of a main building and two wings, all of stone. The main building, two stories high, and destined partly for such patients as are curable and behave themselves quietly, and partly for convalescents, has two divisions, the one for males, the other for females. The greater number of the wards in this building are large and airy, and fitted to receive three, six, or more patients. Along the whole centre of the building, in both stories, there is a small gallery, on both sides of which the wards open, with a single entrance. In the lower story is the apothecary's shop, and a room for

the second physician, who has the day-watch. On the ground-floor lodge the other inferior physician and some watchmen.

The wings of the hospital have only one story; one of the wings is for male, the other for female patients. Along these wings, and towards the garden, there is a large, high, and light lobby, which in the winter is warmed, and during the dark seasons lighted by lamps. In this the patients take their exercise when the weather or the season prevents them from walking out in the courtyard or in the garden. From the lobby the wards are warmed through tubes of iron, commonly one for every two wards. These wards are arranged for several patients; but in one of the wings there are some smaller ones for the unquiet persons, in which the windows are higher up, so that the patients cannot get to them. Ventilation is insured by the opening of these windows, and one opposite to them over the door to the lobby. In these smaller wards there is only one bed, placed in the middle of the room, and furnished with a wooden bottom sloping from the sides to the centre, in which there is an opening for the escape of the urine and fæces, in the case of the patient being very filthy. To this bed the violent patients can be fastened by means of straps. In the corner of these rooms there is a water-closet, fastened into the wall, and in this an aperture, sufficiently large to admit of the close-stool being taken out from without, by which arrangement all offensive effluvia are speedily got rid of.

At the side of each of the wings of the building there is a large room, where a great part of the patients, particularly of the lower classes, are assembled under inspection, and occupy themselves with different handiworks. Every wing has its own court-yard, surrounded by a wooden fence, where the patients, when not at work, may enjoy bodily exercise in the fresh air; and before the main building there is a larger court, where both male and female patients walk about.

It is not allowed to any patient, during the daytime, to stay in the bed-room or to remain in bed, if he does not suffer from any disease that makes it necessary; and, in this last case, there are particular rooms appropriated for those who are sick. Some exception to this rule is nevertheless made in favour of patients of the higher classes, who often get permission to occupy themselves in their own rooms with reading, writing, &c. There are also particular rooms where the patients breakfast, dine, and sup, and rooms for more quiet and orderly patients and for convalescents, where they may entertain themselves with newspapers, books, or games; as, for instance, chess, draughts, &c. In the main building there are some smaller dining-rooms for patients of the higher classes, who are allowed better fare, and dine at a common table.

Both curable and incurable insane are received into this hospital; it is under the administration of the royal board of the poor in Copenhagen, and is visited several times in the year by one or more of its members, for the purpose of seeing that every thing is in proper order.

The hospital is furnished with all sorts of baths, and has a very fine garden and a park. The endowments which it possesses are very considerable, and amount nearly to eighty thousand pounds. On this account many poor persons are admitted without any payment; many pay, on the contrary, for their maintenance while there: those who get a better board pay ten shillings per week, and those who get the usual board six shillings. The daily number of lunatics is 150, and from twenty to forty of the number annually admitted are cured.

The hospital is superintended by a physician and an inspector: the former has under him two other physicians, (of whom, one dispenses the medicines,) and the latter a clerk. They all live in the hospital, and have tolerably good salaries and excellent lodgings. The physician is not allowed to extend his private practice beyond the limits of five English miles from the hospital.

The daily fare of the patients is of four different sorts: 1, the better one for the higher classes; 2, the usual or simple fare; 3, one for those at work, (a greater portion of bread and butcher meat, a luncheon, and a supper;) and, 4,

one for the sick. The physician has besides permission to make what changes he deems necessary in any one's diet.

All the patients of the lower classes are clothed in the same manner, whether the clothes are afforded by the individuals themselves or by the institution. The bedclothes consist of two mattresses stuffed with halm, a pillow stuffed with the same, two sheets, and a coverlet of wool or of feathers. The greatest cleanliness and order exist, and the institution is provided with such a considerable store of linen, shirts, &c., that the patients can run no risk of being kept uncleanly.

Whenever a patient is received into the hospital, he is carried into the bath-house, where he is undressed, washed, combed, bathed, and then dressed in clean linen and in the clothes of the hospital. This rule is even observed with the most part of those who bring clothes with them or provide their own, as they are not allowed to wear their own clothes before they have been well examined, to see that nothing by which the patient can do harm to himself has been concealed in them.

There are fixed rules regarding the order in the hospital and the duties which everybody belonging to it has to perform. Every thing is done with the utmost regularity, and at fixed times of the day. The patients, for instance, must rise in the morning, go to work, dine, &c. at a certain fixed hour. It is evident how much such order and regularity, which are commonly wanting in the domestic circle, must influence the cure of the patients.

When a lunatic is admitted, reports of his previous life, of his situation, his previous diseases, of the probable causes of his insanity,—in short, of every circumstance that may elucidate his present state and facilitate the cure is required to be known. There is a particular form, containing certain questions on these points, which always are to be answered by the relations or the former physician of the patient.

In regard to the causes of mental aberration here observed, the physician, Dr. A. Göricke, a very intelligent and well-instructed practitioner, considers the principal to be poverty, dissoluteness of manners, manustupration, &c., and, particularly of late, abuse of spirituous liquors. The most usual forms in which insanity here manifests itself are idiocy, periodical mania, and melancholia. The mental aberration combined with fixed ideas, occurs more seldom. Epilepsy, with or without insanity, seems here less frequent than in the mad-houses in other countries; and, when this complication occurs, it is considered the most difficult of cure by Dr. Göricke, as well as by all other physicians of lunatics: in fact, he has seen no instance of its being cured. The physician keeps a very accurate journal of all the cases, in which are noted the name, age, and former residence of the lunatic; the information that has been obtained about the course and the causes of the disease; the observations that are made in the hospital respecting the bodily and mental state of the patient at his reception, the means that are employed against it, its results, &c.

The treatment is of course accommodated to the individual circumstances of every patient, but the principles according to which Dr. G. acts are the following: He endeavours, first of all, to win the confidence and love of the patient by a humane treatment and a soothing manner, united with seriousness. Only in particular cases does he employ force and coercion, and then only where mildness is unable to accomplish the object in view. As means of coercion, Dr. G. almost always uses the common strait-jacket, deeming most others, and especially the coercion-stool of Coxe, of no use, and even not seldom noxious. For this purpose, however, he often employs shower and douche baths. As a usual punishment for the disobedience of orders, Dr. G. diminishes the daily fare, prohibits the walking in the garden or in the lobby in company with the others, or he denies them the use of snuff, &c. The second principle which Dr. G. follows in his treatment of the insane is to separate the patients according to the state of their faculties, former manner of living, &c.; and, although this separation cannot be executed in the most perfect degree, Dr. G. does his

utmost in this respect. There is still wanted a separate building, only for convalescents, and this is intended soon to be provided. The third principle in the treatment is to occupy the patients as much as possible with bodily labour and mental recreations, so that they are as much as possible diverted from melancholy thoughts or fixed ideas. The *males* are, for the most part, in the fine seasons, occupied in the park and in the yards with gardening, digging, removing weeds, cleaving wood, pumping water, &c. There are, besides, special working shops for tailors, shoemakers, joiners, and saddlers; some occupy themselves with copying handwriting, painting, drawing, bookbinding, &c. In the winter, they assist within the house in the kitchen, in the forge, &c. The occupations of the *females* are spinning, weaving, darning, knitting, brewing, &c. All the works are of course superintended; and the rewards for diligence consist in a better fare, in praises, &c. Excursions are also often made to a larger park than that belonging to the hospital, a quarter of a mile distant, where the patients are refreshed with fruits, regaled with music, cigars, &c.

As to *pharmaceutical* remedies, Dr. G. keeps the just middle path between those who, with Heinroth and his (few) followers, consider the mind as alone suffering in the insane, and those who derive every species of lunacy from bodily disease. Both physical and moral treatment are considered necessary, and sometimes more of the one and sometimes of the other.

To this charitable institution also belongs another, for the relief and support of old decrepit people, unable to procure their sustenance. The building for these is entirely separated from the hospital; yet often incurable and quiet patients, and epileptic ones, are removed to it from the madhouse.

From the public hospitals we pass to *other charities for the poor*, of which we will only give a short account.

It was not before the year 1799 that the manner of taking care of the needy and poor in Denmark was founded upon sound and right principles. There are now twelve overseers of the poor for the twelve counties of Copenhagen; there is likewise a royal board of overseers, which consists of a president and four members, all of whom receive an annual yet small salary. The twelve overseers receive no salary. The total number of poor taken care of is about ten thousand; a number which readily explains the enormous debt, increasing with every year, which the board has incurred. The receipts are derived from funds supplied by the magistrates, from many legacies, from private beneficence, and from heavy taxes laid upon the inhabitants; but the expenses surpass by far the receipts, inasmuch that the expenditure exceeds the income by no less a sum than 150,000 dollars, (15,000*l.*;) and the whole amount of the debt now is above a million and a half dollars. From this fund the poor and indigent are relieved by alms, good and free lodging, by being furnished with work and tools, by being taken care of when afflicted by diseases, and by getting their children educated at public expense. Public begging is on that account strictly prohibited, and every beggar is immediately arrested.

The metropolis is, as before mentioned, divided into twelve counties, and each has a physician appointed for the benefit of the poor in it. These either call on the physician or are visited by him, and receive medical attendance and medicine gratuitously.

Amongst the many charitable institutions, poorhouses, &c. for the indigent, the following deserve particular notice.

1. *The Almshouse in the General Hospital.* This has been already mentioned.

2. *Wartou, or the Hospital of the Holy Ghost.* This was founded in 1475, for the relief of poor old people, who here receive free lodging, bed, firing, a small weekly present, and free medical aid and medicine. There are at present in this institution 58 males and 358 females. It is not exclusively for the inhabitants of the metropolis, but also for others. Of the beds, 210 are private,

and are disposed of by the proprietors. The right of founding such a bed is sold by the Board for the poor. To this charity-house a church is attached.

3. *The Hospital of Abel Cathrine.* This was founded in 1675, by *Abel Cathrine*, who was of the ancient noble family of *Van der Wisch*, and first lady of the household to the Queen Dowager *Sophia Amelia*. Twenty-three aged females are supported here by the bounty of the foundress, each of them occupying a small room, to which is attached a kitchen and pantry, and enjoying a weekly allowance of one and a half Danish dollar (2s. 6d.)

4. *St. John's House and Almshouse.* This has been already mentioned.

The following charitable institutions and poorhouses, destined for the relief and support of poor widows and other indigent people, not belonging to the lowest classes, are not under the inspection of the royal board of the poor, but are partly under that of the magistrates, partly under that of private persons according to the prescription of the founders.

5. *Harboe's Cloister.* This was founded in 1711 by the Dowager Lady *Christiane Harboe*, for the assistance and relief of twelve widow ladies of a certain rank. They have free lodging, and besides an annual allowance of money. The directress of this institution has the rank of prioress.

6. *Peterson's Cloister.* This foundation originates in the humanity of *Albrecht* and *Sebastian Peterson*; two brothers who were silk-mercens, and resided on the same spot where this establishment is now erected. On the wall over the windows of the second story is inscribed: "*Monumentum pietatis Petersenianæ.*" Sixteen unmarried ladies reside here, enjoying two handsome rooms, kitchen, and cellar, with a yearly pension of about fifteen pounds sterling.

7. *Budolph's Cloister.* This was founded by a student in 1725, for the free residence of eight ladies.

8. *Paul Fechtel's Hospital.* This was endowed by *Paul Fechtel*, who was master of the mint in the reign of King *Frederick the II.* Fourteen old and infirm females have free lodging, and a weekly stipend of about one shilling English.

9. *Princess Charlotte's Institution.* This was founded by the daughter of King *Frederick the IV.*, for the support of poor and destitute females of all ranks. The charity is divided into five classes. The first class is for the education of female children of the nobility; the second for daughters of gentlemen, who have held high situations under the government, and the three other classes are for respectable females of inferior rank.

10. *Stampe's Legacy.* This, amounting to about 8000*l.* was bequeathed for the education of poor children and for the assistance of old and infirm widows.

11. *Trösten's Bolig*, (The lodging of Consolation,) was founded by the late Admiral *Winterfield*. The object of this charity is the relief of worthy indigent widows, in order to afford them lodging at a small expense.

12. *Hans Peter Hofod's Legacy.* This gentleman founded a charity in 1812, for the relief of indigent seamen, their widows, and children, and endowed it with a bequest of about 20,000*l.*

13. *Naval Charity.* This noble charity owes its origin to the late Commodore *Solling*. It was founded in 1827, and affords relief at the present moment to thirty seamen, who by age, wounds, or infirmities, have a claim on this institution. It is entirely supported by voluntary contributions, and is under the immediate direction of ten Directors.

14. *Meyer's Memory.* This is a large institution for the support of persons of the Jewish religion, who here get free lodging.

15. *The united Charitable Society.* This is a very important institution, founded in 1788, for the purpose of aiding industrious and enterprising persons, who by misfortunes have become poor, by lending them money without interest, by which they may procure tools, &c. necessary in their profession. The Society, which at the present moment consists of 1,791 members, supports also poor members or their destitute widows, by annuities and other gifts. It is

supported by legacies and by the publication of a weekly paper, "*Borgervennen*," (The Friend of the Citizen,) which has already existed forty years.

16. *The Female Charitable Society.* This was founded in 1825, and is restricted to females. It distributes every year, on the day of its foundation, premiums to female servants who have been long in service and conducted themselves faithfully and industriously. It supports a school for the daughters of poor parents.

17. *The Sisterly Charitable Society.* This is a similar charity, founded in 1792; it supports a school for daughters of destitute parents.

18. *The United Charity.* This Society was founded in 1832, for the support of poor and indigent persons in general. The members pay an exceedingly small sum, (only 4s. annually,) but their number compensates for this. Poor people are by this charity furnished with bread, firing, clothes, work, and their children with school-instruction.

19. *Wilhelmine's Institution.* This was founded by private subscriptions in 1828, in memory of the Princess Wilhelmine's nuptials. From the interests of the capital, on the 11th of May every year, a dowry of 500 dollars (50*l.*) is given to a daughter of a poor man in a royal office, and 200 dollars (20*l.*) to two craftsmen, in order to enable their settling.

20. *Caroline's Cloister.* This was also founded by private subscriptions, in 1829, to the memory of Princess Caroline's marriage. (Both princesses are the daughters of the present beloved king, and were married to princes of the royal house.) It is destined to afford free lodging and firing to a number of destitute widows and daughters, and to support them with money.

21. *The Royal Orphan-House.* This was founded by King Frederick the IV., in 1727, for the education of orphans or children (boys,) left by their parents. Besides the seventy-four orphans, who are educated in the house, many other children enjoy here gratuitous instruction, and are taught some handicraft. The institution takes also care of the education of many children in the provinces; at present 234 children may be reckoned to be the object of its care.

22. *The Royal Education-house*, ("Ortostringshuset.") This was founded in 1753, for the education of poor boys, who are here brought up to professions. The information given here is more extensive than is usual in the free schools, and no boy is admitted into the charity without being already imbued with a certain degree of elementary knowledge.

23. *The Deaf and Dumb Institution.* This was founded in 1817. The present king has bestowed on this noble establishment a fine building, where seventy boys and fifty girls are educated, clothed, and have every possible comfort. The first instructor, Mr. Schow, teaches religion, six other teachers different sciences, and two females are employed for the instruction of the girls. At a certain age boys educated here are instructed by teachers, who are deaf and dumb, in the profession of tailors, shoemakers, and weavers.

Mr. Amsel Meyer, who has bequeathed so many legacies to the different public charities of Denmark, left to this institution 4000*l.*, and every county in Denmark sending a child to this infirmary is subject to an annual payment of about 10*l.* derived from the poor-rates. The greater number of children who have been educated here are now following useful occupations.

24. *The Asylum and School for the Blind.* This was founded, 1811, by a private society of female free-masons, ("Kiædeselskabet,") and is still supported by it, by the king, and by various legacies. Twenty children are here instructed in religion, arithmetic, history, geography, natural history, and music; the females are taught spinning and knitting. To the school belongs, since 1825, a workhouse, into which the blind, after having perfected themselves in some handicraft, can be received, and where they may earn the fruits of their industry, have free lodging, &c.

25. *The Royal Humane Society.* This was established 1798, for the recovery of persons apparently drowned or dead. The Society has different receiving houses in the metropolis, all of which are supplied with excellent apparatus, and

designated by conspicuous boards announcing their object. The Society distributes premiums to persons who have saved others from drowning, or exerted themselves in their recovery.

26. *Infant Schools.* There have been lately established, by private subscriptions, several asylums of this kind in different towns, where children between three and five years, who cannot be taken care of by their poor parents during their daily labours, are brought under inspection, and at the same time get such instruction as accords with their age.

Of late also a *Society for the bettering of criminals, and particularly of young delinquents*, has been established.

STATE OF MEDICINE IN AMERICA.

WE have received the following document since the publication of our AMERICAN REPORT in last Number; and, as it forms an important addition to that paper, we give it here at full length.

Table of Charges for Professional Services, revised and adopted by the Philadelphia College of Physicians, in November, 1836.

	Dollars.
For a single visit in a case, from	1 to 10
When detained, for each hour	2 ... 5
For an ordinary visit	1 ... 2
When to more than one person in a family, fifty cents. for each additional patient.	
For a visit at a time appointed by the patient or his friends	0 ... 2
For verbal advice at the physician's house	1 ... 10
For written advice	5 ... 20
For rising at night, without leaving his house	1 ... 5
For rising at night, and a visit	5 ... 10
For a first visit in consultation	0 ... 5
For subsequent visits in the same case	1 ... 3
For rising at night, and a visit in consultation	5 ... 15
In visits to distant patients, one dollar for every mile beyond the limits of the city, in addition to the ordinary charges.	
An extra charge may be discretionally made for travelling at night, or on account of the badness of the roads, or the inclemency of the weather.	
For vaccination	0 ... 5
For an ordinary case of midwifery	10 ... 30
For the application of forceps, or for turning, when, in a consultation, either shall be deemed necessary, an addition of	0 ... 10
For any indisposition in the mother or child, after the tenth day of confinement, the charge for attendance as in ordinary cases requiring medical treatment.	
For reducing fractures	5 ... 10
For reducing luxations	5 ... 30
For passing the catheter	1 ... 10
For removal of stone from the bladder	100 ... 200
For amputation of a leg or arm	25 ... 100
For amputation of a finger or toe	5 ... 20
For extirpation of large tumours	50 ... 100
For extirpation of other tumours	5 ... 30
For trepanning	25 ... 100
For the operation for cataract	50 ... 100
... for aneurisms,—subclavian, carotid, femoral,	100 ... 200
... for hernia	25 ... 100
... for fistula lachrymalis	15 ... 30
... for hare-lip	20 ... 50
... for fistula in ano	20 ... 40
... for hydrocele	5 ... 20
... for ascites	10 ... 20

In all surgical cases, the charge for subsequent attendance to be according to the time occupied and the trouble incurred.

N.B. To enable practitioners to exhibit uniformity in the rate of charging, it is proposed that no entry shall ever be made in their account books of lower fees than those contained in the above table. If in any case, however, the physician should have reason to believe that his patient cannot pay the full amount without serious inconvenience, a deduction may be made at the end of the year, at the moment of rendering his bill, or at any other time. But the Fee-bill, as at present established by the College, being founded on a just consideration of the important services which its members are called on to perform, it is their duty to conform to it in their charges, whenever the circumstances of their patients are not such as clearly to forbid it.

ON THE PRESENT STATE OF MEDICINE IN ITALY.

IN the absence of a more formal Report, we are happy to lay before our readers the following extract of a letter, which we have just received from a very intelligent friend, a physician, who has been some time resident in Italy. We hope soon to present them with a more detailed account, both of the doctrines and practice of the Italians.

"From what I have seen of the Italian physicians, I would remark, that they display considerable learning and much acquaintance with ancient authors, yet in their practice they do not appear to advance beyond the days of Hippocrates or Galen. Following closely the footsteps of the great Father of Medicine, they carefully watch the natural progress of the complaint, but unfortunately they do little either to assist or counteract the operations of nature. In their practice they seldom employ anything like decision or vigorous measures to cut short disease; and, even in the most acute complaints, they depend more on diet and regimen than on the use of medicines. I would not assert that they lose more patients than the English physicians; but I have no hesitation in saying that the bad effects of their mode of treatment is apparent in the immense number of chronic diseases which are continually presenting themselves, and which might probably have been prevented from becoming such, had depletion been more freely resorted to in the acute stage of the disease. Chronic gastritis, for example, with all the melancholy symptoms of dyspepsia which so frequently accompany this disease, and chronic enlargement and induration of the abdominal viscera, are everywhere to be seen.

"There is probably no point on which the continental practitioners differ from the English more than in the use of the lancet. Where an English physician would take away some pounds of blood to cut short an acute inflammation, an Italian takes away six or eight ounces, and repeats this venesection for days, until the disease terminates. Their ideas on this subject are very different from ours: we think that, the sooner we cut short an inflammation, the greater is our chance of preventing disorganization; they, on the contrary, believe that, by merely assisting the efforts of nature by small bleedings frequently repeated, they will at last subdue the disease more effectually, and without injuring the patient's constitution. Some, indeed, carry this difference of opinion so far as to assert that the great number of phthisical complaints in England is owing to the large bleedings which we prescribe, by which the powers of life are lowered to such a degree as to prevent the patient from again rallying. In their treatment of fevers, they employ purgatives much less frequently than we do: gentle diaphoretics, such as James's powder in one or two grain doses, alone or in combination with small quantities of spiritus mindereri and syrup of violets, are the only medicines they have any reliance on. The tepid bath is in great use among them in all febrile complaints, unless there be an eruption on the skin or an affection of the chest. The only purgatives which are used in fevers are magnesia and castor-oil, the former most frequently; but, as I said before, they do not consider it so necessary as we do to clear out the primæ viæ. When they apply blisters in inflammatory complaints,

(e. g. in pulmonic affections,) it is seldom over the part affected, but generally to the arms or legs.

“When they give medicines, they seldom, as in England, write out a prescription composed of a variety of ingredients, with directions for use: they generally write the name of one medicine on a piece of paper in the vernacular language, and give verbal directions as to the way in which it is to be employed. Indeed, their manner of prescribing is altogether so loose and irregular that one cannot help feeling that they do not place much reliance on what they prescribe.

“In regulating the patient’s diet, however, they act with great judgment: here, indeed, they exhibit much more discrimination than the generality of English practitioners; and we may safely say that they are more indebted to their judicious management of the diet than to any medicine they give, for the cures they effect. In fevers and inflammations, not only everything like solid food is withheld from the patient, but even the weakest broths are forbidden; lemonades, or asses’ milk, diluted with two or three parts of water, is all they allow, sometimes for twenty days, in fever; and it is only when the strength is giving way, or where the disease has nearly disappeared, that weak chicken broth would be permitted. In their theory of disease, they evidently lean more to the humoral pathology than to any of the more modern doctrines. This is remarkably the case in their treatment of chronic complaints, nervous affections, &c.; a great proportion of which they attribute to diseased humours in the blood, arising from repelled eruptions; and, for purifying the blood and removing these humours, they have a variety of medicines, chiefly vegetable, which they prescribe in the spring. Decoctions of fumaria, of graminia (the Fiorin grass), and of sarsaparilla, are often given for weeks or months, with this intention. The flesh of the viper is also a favorite remedy with them in eruptive diseases.

“In describing the opinions and practice of the Neapolitan and other Italian physicians, I must observe, that it is the older physicians whom I have chiefly in view; for there are many of the juniors in the profession who are fast approaching to the French or English mode of practice.”

DR. MARSHALL HALL’S DISCOVERY IN REFERENCE TO THE FUNCTIONS OF THE SPINAL MARROW.

SINCE the publication of our last Number, we have had some correspondence with Dr. Marshall Hall, on the subject of an article contained in it, “On the Physiology of the Nervous System;” he being of opinion that justice was not done by the Reviewer to his views of the *Reflex Function of the Spinal Marrow*. Dr. Hall having kindly favoured us with his own statement of his claims, we willingly accede to his request to present this to our readers without alteration. We shall append a very few notes to Dr. Hall’s letter, in illustration and (if we may say so) corroboration of certain opinions advanced in the article referred to; but no more than seems unavoidable on our part. Indeed, had not Dr. Hall’s letter related to physiological questions of great importance we could not have noticed the subject again in our Journal; as we determined, from the very beginning of our labours, not to occupy its pages with matters of personal controversy, even should we have the misfortune, as on the present occasion, to differ in opinion with men of distinguished scientific and professional eminence. As, in our brief remarks on Dr. Hall’s letter, we shall studiously restrict ourselves to the defence or illustration of statements already made by us, we hope this amicable controversy will here terminate.

LETTER FROM DR. HALL TO HIS REVIEWER.

“I very gladly send you, as you kindly request, a very brief account of what it is I claim as my discovery, in reference to the functions of the spinal marrow.

“The first *fact* which I observed was that presented by the tail of the sala-

mander, recently separated from the trunk: on being touched by the point of a needle, it coiled up with energy. This phenomenon ceased on destroying the portion of the spinal marrow within the caudal vertebræ, the irritability still remaining.

"Did I claim the discovery of this fact?—No more than Newton ("sic parvis componere magna,") claimed the discovery of the *fact* that an apple would fall if its point of suspension were removed.

"But the fact was to me as the fall of the apple. It suggested to me what I do claim—viz. the *principle*, 'novel and extensive in physiology,' on which it itself, and, 1, all the *experimental* facts noticed by Redi, Whytt, Legallois, Mr. Mayo, &c.; 2, the series of *physiological* phenomena, beginning with the act of winking on touching the eyelash, and terminating with the tonic condition of the whole muscular system; and, 3, the series of *pathological* events, beginning with the effects of teething, and including all those diseases of the nervo-muscular system which have not their source in the nervous centres,—are to be explained.

"This principle is expressed (however uncouthly) by saying that it is, in certain cases, *direct*, but far more frequently *reflex*, and always *excito-motory*; nor can I dispense with any one of these epithets.

"I may observe, that this principle is distinct from *sensation* and voluntary motion. It exists in the human subject in cases of perfect paraplegia, in which the patient can bear testimony to the fact. It must then be novel.

"It is the peculiar and special property of the medulla spinalis, and entirely independent of the brain and of the sympathetic nerve, existing when these are removed.

"The brain, the olfactory, the optic, the acoustic nerves, are destitute of the excito-motory property; facts proved by M. Flourens and M. Magendie. This property begins at the tubercula quadrigemina, and subsists in the whole spinal marrow and the motor nerves. These facts have been ascertained by Lorry, M. Flourens, Professor Müller. Its action is *direct*; that is, it pursues the course of the spinal marrow and motor nerves, *from* the nervous centre *to* the muscular system. Its principal physiological action (and this observation I claim,) is in giving *tone* to the muscular system. It is affected pathologically in all *centric* diseases of the spinal marrow, and in diseases of the motor nerves.

Prof. Müller proceeded a step further. In a most interesting paper, published in the "Annales des Sciences Naturelles," (tom. xxiii. p. 108,) he states that, on laying bare and dividing the spinal marrow in a frog, and irritating by the forceps, or by galvanism, the extremity of its upper portion, the head and anterior extremities were moved; demonstrating that the spinal marrow possesses a *retrograde* influence, and consequently is something more than a mere bundle of nerves.

"I have proceeded a step further still. 'I have found,' (*Lectures*, paragraph 57,) 'that movements of the limbs are excited by pinching the intercostal nerves, as they leave the spine, continuously, by the forceps. The influence of this stimulus is not only *reflected* upon the limbs, but it is *retrograde* in its course, passing from a nerve proceeding from the middle part of the spine *forwards* to the anterior, as well as backwards to the *posterior* extremities. This experiment appears to me to present us with the simplest *type* of some spasmodic diseases, and especially of the traumatic tetanus.'

"This last experiment I claim. I do not claim any of the facts to be found in Redi, Whytt, Legallois, or Mayo, any more than Newton claimed the universally known facts of the revolution of the planets in their orbits, or Haller the equally well-known fact of the contraction of the heart and other muscles on the application of a stimulus. But I do claim this experiment; and I do so because I think that it is new, and that it proves a "novel and extensive principle in physiology;" that it proves, in fact, the existence,

"1. Of a true Spinal Marrow, *physiologically* distinct from the cord of intravertebral nerves.

"2. Of a system of Excito-motory Nerves, *physiologically* distinct from the nerves of sensation and voluntary motion.

"3. Of currents of Nervous Influence, incident, upwards, downwards, and reflex with regard to the spinal marrow.

"I repeat, that this experiment affords the type, or simplest form, of the series of physiological and pathological phenomena to which I have alluded; and especially of all the diseases of the nervo-muscular system, having their origin, like dentition, traumatic tetanus, &c., in a point situated eccentrically in reference to the spinal marrow.

"I claim the division of spasmodic diseases founded upon these views, into those having their origin in incident nerves, in the spinal marrow itself, and in motor nerves; the three divisions of the excito-motory system. Approximations may have been made to this view of spasmodic diseases, but, until the system itself was understood, its pathology must have been obscure; and I do not wish to dispute with those who, like the adversaries of Lavoisier, "*déterrait, pour le chagriner, tous les vieux livres ou pouvaient se trouver quelques idées analogues aux siennes.*" (*Eloges historiques*, par M. le Baron Cuvier, tome iii., p. 186.)

"I feel persuaded that you will not be offended with me for my frankness; I will therefore make an observation or two upon your Review.

"First, it was a mistake to say that 'it was ascertained by Legallois, Magendie, Flourens, and others, that the parts of the nervous system essentially concerned in sensation do not extend higher than the medulla oblongata.' Whatever Legallois may have thought, M. Flourens' opinion is directly the contrary.*

"Secondly, it was a mistake to add, that 'it became obvious to every one who reflected on the subject at all, that, if the doctrine of the dependence of sympathetic actions on sensations is true, it must be the spinal cord and medulla oblongata, not the brain, that must be concerned in producing that description of muscular actions.' (*B. and F. Med. Rev.*, No. V., p. 34.)

"Dr. Alison, for instance, has written upwards of sixty pages upon this subject without once mentioning either the medulla oblongata or spinal marrow.† The thing could not, therefore, be so very obvious.

* Our reference, it will be observed, was not to the work of Flourens, but to the Report, by Cuvier, to the French Institute, on the experiments of Flourens; the language of which is much more precise and accurate. Cuvier's words are, "*C'est tout à fait dans le haut de la moelle allongée, à l'endroit où les tubercules quadrijumeaux lui adhérent, que cesse cette faculté de recevoir et de propager d'une partie de l'irritation, et de l'autre la douleur. C'est à cet endroit au moins que doivent arriver les sensations pour être perçues, c'est de là au moins que doivent partir les ordres de la volonté. Ainsi la continuité de l'organe nerveux, depuis cet endroit jusqu'aux parties, est nécessaire à l'exécution des mouvemens spontanés, à la perception des impressions, soit intérieures, soit extérieures.*" See *Journal de Physiologie*, t. ii., p. 384; and he argued, as we think justly, *against* the supposition that the various movements seen in an animal, of which the cerebral hemispheres have been removed, "*s'opèrent sans être provoquées par aucune sensation,*" (*ib.* p. 381:) i. e. he thought that a degree of sensation remains in an animal thus mutilated. It will be remembered that, in some of the experiments of Flourens and Bouillaud, animals lived for months, and grew fat, in which the cerebral lobes had been removed, and which merely swallowed food put into their mouths, never seeking nor seizing food; and, when not roused by irritation, appearing to be in profound sleep. Were these animals devoid of sensation? If not, how did the phenomena presented by them differ from those which are here called "*excito-motory*?" Is respiration (an excito-motory phenomenon,) independent of sensation? Those who think so will find many physiologists besides Whytt opposed to them.

† Dr. Alison, in his paper on the Physiological Principle of Sympathy, professes to do no more than illustrate and confirm the doctrine of Whytt on that subject. Now, Dr. Whytt's doctrine is, "*that the various sympathetic motions of animals, produced by irritations, are owing to particular sensations excited in certain organs, and thence communicated to the brain or spinal marrow;*" and, therefore, that "*all sympathy must be referred to the brain and spinal marrow, the source of all the nerves.*" (*Of the Sympa-*

"I was much annoyed to find my experiment on the horse (*op. cit.* p. 34.) compared with some experiments by Whytt on the frog. What was the *gist* of my experiment? To prove that, when *sensation* was annihilated, excito-motory phenomena remained. Was this the object of Whytt's experiment? Certainly not. Whytt considered the phenomena which he observed to be dependent on sensation. Then the two experiments do not fairly admit of comparison; and certainly I am as far from being of Whytt's opinion as the poles are asunder. This physiologist concludes, 'If the motions of the muscles in a cock's limbs, after decollation, are, without doubt, owing to its *soul* (!), may we not also ascribe to the same principle the like, but less remarkable motions, in men and quadrupeds, after their heads are struck off, and, consequently, the tremulous motions and palpitations of their *hearts* (!) too, after death or separation from their bodies?' (*Whytt's Essay on the Vital Motions*, p. 389.)

"I beg, in conclusion, to call your particular attention to the preface to my 'Lectures,' and to the recent confirmation of my views by Prof. Müller.

"I am, &c. &c.

"MARSHALL HALL."

"14, Manchester square; Feb. 2, 1837."

We confess that the analogy of the case of Sir Isaac Newton and the fall of the apple did not occur to us; but we gladly take this opportunity of expressing our high respect for the zeal, industry, and physiological attainments of Dr. Marshall Hall; and our regret that he should think himself unfairly treated by any criticism of ours. But, after carefully considering his explanation, (part of which we are not certain that we exactly comprehend,) we cannot see that, in justice to former authors, and particularly to Dr. Whytt, we can retract the opinion formerly expressed. The phenomena which he describes are precisely of the same class as those described by the other authors formerly quoted: those of them which are not the direct effect of the irritation of motor filaments of nerves, come strictly under the definition of sympathetic actions, and are important as illustrating the mode of production of that important class of vital actions; and the general doctrine of Whytt in regard to all such phenomena, when limited by modern discoveries in the way stated in our note on Dr. Hall's letter, and several of his individual experiments clearly and demonstrably point to the spinal cord, as the main agents in producing them. We have explicitly ascribed merit to Dr. Hall for "fixing the attention of physiologists on these actions, and on the agency of the spinal cord in producing them, and likewise for casting doubts on the doctrine of their dependence on sensation;" and have admitted that this last question is still *sub judice*; only pointing out that, in the entire and perfect animal, these actions are always preceded and attended, if not directly caused, by sensations, and are obviously intended to remove the causes of those sensations; and our readers can now judge for themselves whether a novel and important principle, overlooked by us, has been established by Dr. Hall.

thy of the Nerves, in Whytt's works, p. 510-11.) And Dr. Alison has expressly stated, at the conclusion of his paper, that "modern physiologists have rendered this doctrine somewhat more precise, by determining the portions of the encephalon which appear essential to the sensations, and the actions of nerves in consequence of them, taking place." (*Edinb. Medico-Chirurg. Transactions*, vol. ii., p. 223, published in 1826.) The limitation of the parts of the encephalon thus assigned to sensations, and to their effects, is thus stated in the same author's *Outlines of Physiology*: "It is now satisfactorily ascertained that no part of the brain, higher than the corpora quadrigemina, nor of the cerebellum, is essentially concerned in sensation." (P. 131.) Now, if we acquiesce in the doctrine of Whytt, ascribing sympathies to the brain and spinal marrow, but limit it to the extent of excluding all parts of the brain higher than the corpora quadrigemina, what remains to be concerned in them but the medulla oblongata and spinal marrow? And, if this was not expressed *totidem verbis*, was it not because the expression of it appeared really superfluous?

It is true that Dr. Whytt, in the passage quoted by Dr. Hall, and in many others, has pushed his favorite doctrine of muscular action produced by sensation to an unwarrantable length, extending it to the contractions produced by direct physical irritation of the motor nerve, even of an amputated limb, and to the usual contractions of the involuntary muscles; but his errors in these respects are foreign to the present discussion, which relates only to muscular movements produced by irritation of distant parts, and especially of the sentient extremities of distant nerves.

As to the paper of Professor Müller, "on the Reflex Function of the Spinal Marrow," kindly communicated to us by Dr. Hall, (and published in the London and Edinburgh Philosophical Magazine, for December last,) we must be permitted, with all respect for that very meritorious author, to observe, that it seems to us to prove nothing more distinctly than that the learned author, like many physiologists in this country, had not duly studied the writings of Whytt and Monro on the Nervous System. The coincidence of his views with those of Dr. Whytt is the more remarkable, as he does not, like Dr. Hall, exclude sensation from the production of the phenomena of which he treats. His doctrine is shortly and distinctly stated by himself as follows: "When *perceptions*,* which are produced by external stimuli on sensitive nerves, produce motions in other parts, this never takes place by a reciprocal action of the sensitive and motor filaments of the nerves, but by the sensorial excitement acting on the brain and spinal marrow, and from these back to the motor filaments. This extremely important principle in physiology and pathology requires a strong proof, which may be very clearly attained empirically, and then explains a number of physiological and pathological phenomena;"† and he particularly enumerates the actions of the respiratory muscles in breathing, coughing, sneezing, vomiting, the expulsion of fæces and urine, &c., as admitting only of this kind of explanation.

In the sentence above quoted, three propositions are stated: 1. That external stimuli may produce motions in other (i. e. distant) parts, by impressing sensitive nerves and exciting sensations; 2. That this fact is not to be explained by a reciprocal action of the sensitive and motor filaments of nerves, (i. e., as he afterwards explains, by the connexions or anastomoses among nerves;) and, 3. That it is to be explained by an excitement carried to the brain and spinal marrow, and thence back to the motor nerves of individual muscles.

Now, that there is nothing in these propositions which was not previously familiar, at least to some British physiologists, and which was not regarded by them as established by the labours of physiologists of the last century, we think we shall unequivocally demonstrate by three short quotations from Dr. Alison's paper on the Physiological Principle of Sympathy, already mentioned.

"In those sympathetic actions in which the organs of animal life are concerned, the phenomenon observed is, that, on an irritation or stimulus being applied to one part of the body, the voluntary muscles of another and often distant part are thrown into action; as when the respiratory muscles are excited, apparently by changes in the lungs, in ordinary breathing, or by irritation of the nostrils or trachea in sneezing or coughing; the distant muscles concerned in vomiting, by irritations acting on the stomach; the distant muscles concerned in the expulsion of the fæces and urine, by irritation of the rectum and bladder, &c." (*Ed. Med.-Chir. Transactions*, vol. ii. p. 169.) "The researches of Dr. Whytt and Dr. Monro were, I think, quite successful in establishing two points in regard to such phenomena: 1. That they cannot be explained by the connexions of the nerves of the sympathising parts; and, 2. That they

* This should have been, we think, translated "*sensations*:" in the original, *Empfindungen*.—REV.

† Extract from Prof. Müller, by Dr. Hall, p. 8.

do not indicate any necessary consent or sympathy *between individual parts* of the body, but are, in general, simply the effects of certain mental *sensations*; and that, in these instances, one part of the body sympathises with another only in so far as the sensation which is the natural and appropriate stimulus of the one, is excitable by irritation of the other." (*Ib.* p. 170.) "We have seen evidence sufficient, as I think, to induce us to acquiesce in the proposition that these actions must generally depend on the excitation of particular sensations. In order that these sensations may be felt, the nerves, from the impressions on which they proceed, must be entire up to the brain; but, when they are strongly felt, their influence extends, or is *reflected* downwards, often to parts of the nervous system remote from those in which they originated. Each acts as a stimulus, or excites an involuntary instinctive impulse, which acts as a stimulus, on particular muscles only; and we cannot tell why. *This was the doctrine of Whytt, of Monro, and of Haller.* Modern physiologists have rendered it more precise, only by determining the portions of the encephalon which appear essential to the sensations, &c. (as quoted in the note above.) Further than this, in the explanation of sympathetic actions, I cannot go; and I will venture to maintain that, whoever does go further, goes on hypothesis, and will find himself opposed by facts." (*Ib.* p. 222.)

In order to perceive the exact coincidence of the "extremely important principle" stated by Müller with the doctrine thus previously held to be established, it is only necessary to add, that the distinction of sensitive and motor nerves, laid down by Sir Charles Bell, is distinctly admitted and recognized in the paper in question, (see p. 191;) so that the transmission of the sensations upwards must necessarily be ascribed to the sensitive filaments of the nerves, and that of the stimulus thence resulting downwards, to the motor filaments, as stated by Müller.

SCIENTIFIC DISCOVERIES IN GERMANY.

(*Extract of a Letter from Professor WEBER, of Leipzig, dated Dec. 1836.*)

At the Association of Naturalists at Jena, which I attended last September, a very interesting discovery (made by M. Fischer, of Carlsbad, and confirmed by M. Ehrenberg, of Berlin,) was communicated,—viz. that *slate* (Polierschiefer), and likewise *flint* (Feuersteine), in great part consist of the shells or envelopes of petrified animalcules. Several species of animalcules have an envelope which contains silica, and therefore resists the action even of a glowing temperature. I have myself examined several varieties of slate; and, on comparing the animalcules I therein found with corresponding ones now in a living state, I satisfied myself that the same descriptions really occur very numerous in the above mineral. Ehrenberg has reversed the experiment, by evaporating (to dryness) mud in which these animalcules abound, and then burning it in a porcelain stove. He thus produced an artificial stone, which, on being examined, was found to contain the envelopes (Panzer) of the animalcules in the identical state in which they manifested themselves in the natural mineral.

Another remarkable discovery was that of M. Göppert, of Breslau,—viz. that portions of plants, steeped in a metallic solution, imbibe the latter to repletion. If afterwards submitted to a glowing heat, the metal becomes reduced, and represents the precise form of the portion of plant, down to its minutest parts. The same experiment may be made with earthy solutions, and an artificial petrification thus be obtained.

You will remember being with us at the St. James's Hospital, when my brother and I proved, by experiment on the dead subject, that the head of the femur is retained within the acetabulum, or socket, *not* by the ligaments and

muscles, but by the power of atmospheric pressure.* To these experiments we have since made an addition. Having sawed out the entire acetabulum, together with the upper part of the femur, (without injuring the ligaments,) from a dead body, we suspended the whole portion, by the acetabulum, from the lid of the bell appertaining to an air-pump, and attached a weight of two pounds to the femur. On exhausting the bell to within two or three inches, the head of the femur sinks to the extent of half an inch. On then readmitting the air, the head rises back again into the socket, despite the weight with which it is clogged. The same phenomenon manifests itself when circular division of the capsular ligament has been previously made; in which case, the upper half of that ligament performs the office of a valve. If the weight attached to the femur far exceed two pounds, the head of the bone delapses to the utmost extent that the ligamentum teres will admit of.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

IN another part of the present number, we have referred to this excellent and highly respectable Institution, the members of which resolved, on its completing its centenary, to celebrate the event by an appropriate festival. Accordingly, on Friday, the 17th February, this celebration took place, at the Hopetoun rooms. Owing to the season of the year, and the very general prevalence of the influenza, members from a distance were, for the most part, prevented from attending; nevertheless, one hundred and sixteen individuals assembled on the occasion. The proceedings commenced with the delivery, by Mr. Carpenter, senior president, of an oration, which was characterized no less by eloquence and power than by elegance of style. The chief object of the orator was to detail the leading features of the history of the Institution, and to point out the numerous advantages which had accrued to medical science from its establishment. We regret that our limits prevent us from giving any lengthened extracts from this discourse. We must, however, quote part of a passage relating to the connexion of some of our most distinguished men, in the early part of their career, with this Society; a circumstance extremely interesting in the literary history of our profession. We are much mistaken if the author of this oration is not himself destined to swell the list of those who, having received the benefit of an early stimulus from this Society, have repaid it, in after years, with the lustre of an enduring name.

"It is probably not generally known, that it was in the Medical Society that Dr. Crawford first promulgated his beautiful theory of animal heat, whose ingenuity none can deny, although the soundness of its premises may fairly be questioned; it has been characterized by the learned and philosophic Bostock as 'one of the most interesting and beautiful specimens of the application of chemical and physical reasoning to the animal economy that had ever been presented to the world.' Here, too, was commenced by the eminent author I have just quoted, that career of physiological enquiry and experimental research, by which he has earned a high and deserved reputation. The favorable reception of the dissertation read by Dr. Currie, on the effect of cold on the living animal body, must have prepared the way for those extended investigations, the publication of which ultimately led to a more correct appreciation of the therapeutic value of this agent. It was to this Society that Dr. Bateman presented his first essay in that branch of enquiry to which he afterwards so successfully devoted himself. It was here, too, that Dr. Henry exhibited his early attachment to the science of which he subsequently became so bright an ornament; and here also were commenced the beautiful researches of De la Rive on some of the nicest questions regarding caloric and magnetism. To the members of this Society

* See an account of the experiment, as made in Germany, in our third Number, p. 236.—Ed.

were first communicated the result of those profound investigations into the physical history of mankind, which have given an European reputation to the name of Prichard. In our hall did the sagacity of Dr. Kay demonstrate the erroneous nature of the opinions of Bichat on the subject of asphyxia, and propound a theory deduced immediately from experiment, which is now received by our ablest physiologists; and there also took its rise the series of investigations into the atmospheric changes produced by animal and vegetable respiration, which have raised the name of Ellis to a high rank among the original enquirers in this department of science. . . . In the dissertations of Professor Jameson are to be found the earliest display of those talents which have been so successfully devoted to the advancement of a science whose gigantic strides and comprehensive grasp are constantly opening new fields of experimental enquiry, and affording new topics for philosophic speculation. The lectures of Dr. Thomson on Inflammation, and the work of Dr. Wilson Philip on the Phlegmasiæ, are among the results of debates in which the principal share was taken by these two individuals, whose well-earned reputation places them above any eulogy of mine. It must not be forgotten also, that the *Elementa Medicinæ* of Dr. Brown were published whilst their author occupied, for the third time, the chair of the Medical Society."

We cannot omit Mr. Carpenter's eloquent and energetic peroration:

"If in past times an ardent thirst after knowledge, a generous emulation in its acquirement, a steadfast pursuit of truth, a clear and unprejudiced judgment, were cherished in the breasts of the illustrious men who have shared our Association, by the opportunities of mental cultivation which they there enjoyed, and of which they have shown the abundant fruits, can we believe that these ennobling influences are no longer exerted, that from the increased fertility of the soil has resulted any diminution of its products? Gentlemen, let the memory of the energetic spirits, who, with Promethean skill, united the scattered elements into this giant frame, and animated it with living fire, not be without its effect this day, in stimulating us to carry on their noble purposes with renewed vigour. Their period of exertion has passed, and we have entered into their labours. But, though dead, they yet speak to us, in the dauntless courage with which they opposed the prejudices of the times, and the unwearied energy by which they succeeded in dispelling them. They speak to us in the noble reputation they have acquired for our institution, and which we are bound by the most sacred ties to maintain. They speak to us in the ardent zeal of their pursuit of truth, which they call upon us to imitate. They speak to us in the individual celebrity which they acquired, and encourage us to similar attainments. And could their spirits be with us this day, to witness the glorious result of their exertions, they would join with us in the earnest desire that the Society which they founded, and which now depends on us for its support, may still be the first in usefulness, as it was the earliest in formation; that as long as medical science shall continue to advance, and the pains of suffering humanity be assuaged by the healing art, so long it may persevere in its brilliant course, with undiminished lustre; and that many centenary gatherings of its members may unite, as we now do, in the fervent wish,—ESTO PERPETUA."

In the evening the members dined together, Professor Hope in the chair, assisted by the four presidents of the Society, Mr. Carpenter, Mr. Cormack, Dr. Charlton, and Mr. Bennet. Amongst the company present were many of the professors of the university and the principal medical gentlemen of eminence in the city of Edinburgh. We heartily wish this Society all the prosperity to which it is so well entitled and which it has so long preserved: if it is one of the most flourishing, it is certainly one of the most useful in the kingdom.

OBITUARY.

PROFESSOR TURNER.

EDWARD TURNER, M.D. F.R.S.L. & E., Professor of Chemistry in University College, London, died on Sunday, 12th February last, at his residence at Hampstead. During some years, Dr. Turner had suffered very much from pain in the right side of the abdomen, for the removal or alleviation of which he had recourse occasionally to local bleeding and blisters. Within the last two years his frame, never robust, became emaciated to such a degree, that, previously to the last fatal illness, all his acquaintances felt astonishment that, though so worn and wasted, he should have never failed to discharge his duties with his characteristic quickness and energy.

In the last days of January, Dr. Turner was seized with influenza, and this disease was the immediate cause of his death. On examination after death, it was found that the lungs were the seat of extensive inflammation (pneumonia), which had its commencement in an attack of the then prevailing epidemic. The cause of the suffering and emaciation of so long continuance was found in the pyloric end of the stomach and in the duodenum. The former was the seat of chronic inflammation and slight ulcerations; the latter was studded with numerous ulcerated points.

Dr. Turner was born in Jamaica, in which island his father possessed considerable property; but at a very early age he was removed to this country. After having received his elementary education at Bath, and studied some time with a surgeon, he was sent to the University of Edinburgh, where he graduated as doctor of medicine. Soon after having taken his degree, he returned to Bath, his English home, with a view to the practice of his profession; but the active, nervous temperament of the young physician could ill brook the tedium of "waiting for practice." In a very short time, therefore, not more than a month we believe, he went to Paris, in company with his contemporary and fellow student, Professor Christison, who had long been, and who remained to the close of life, one of his most intimate and attached friends. It was at Paris, if we mistake not, that Dr. Turner determined to pursue the study of chemistry. In Göttingen he likewise devoted himself most ardently to his favorite science, under the guidance of Professor Stromeyer. In 1824, Dr. Turner began to lecture on chemistry at Edinburgh, and, on the foundation of the University of London, now University College, (1828,) was elected professor of chemistry in that Institution.

As a chemist, Dr. Turner became very early distinguished for the extent and accuracy of his knowledge, and as an acute and original observer. He published several papers in the Transactions of the Royal Societies of London and Edinburgh. The work by which he was most known is the "Elements of Chemistry," which has for some time been, perhaps, the most popular treatise on the subject in this or any other language. Its sale in this country has been very great, (averaging 3,500 in a space of two years,) and its circulation in America has been much more extensive still.

It is impossible to speak truly of Dr. Turner's general character or his moral qualities without running the risk of being accused of exaggeration. He was beloved by all who knew him for the amenity of his manners, the cheerfulness of his disposition, and his enlarged and active benevolence; while he was no less respected for his integrity, his love of justice, and the stainless purity of his life. We hold that almost universally the truest evidence as to the character of a public teacher, whether as an instructor or as a man, may be derived from his pupils; and, applying this test to Dr. Turner, no one could have excelled him.

It would be a culpable omission not to notice the sincere piety and firm christian faith which adorned Dr. Turner, and enabled him to support ill-health, and even to contemplate death, with cheerfulness. This important point of his character was detailed and powerfully dwelt on by his friend and former colleague, the Rev. Thomas Dale, the distinguished Rector of St. Bride's, in an

extemporaneous address delivered, at the request of the family, over the grave "when earth was returned to earth;" and subsequently at St. Bride's Church, in an admirable sermon, which we trust will be given to the public in a permanent form.

JOHN JOHNSTONE, M.D. F.R.S.

Lately, at Birmingham, Dr. John Johnstone, in his sixty-ninth year, one of the most distinguished members of a family long eminent for moral worth and scientific acquirements. Dr. Johnstone had practised as a physician in Birmingham upwards of forty years, and among the members of his profession his name must be placed in the first rank. With deep professional learning he possessed an acuteness of intellect, an insight into character, a decision of mind, and a kindness of manner, eminently valuable in every relation of life, but more peculiarly important in that of a physician. His skill was uniformly acknowledged by his fellow-citizens, and, indeed, throughout the extensive district in which he practised. But it was not as a physician only that Dr. John Johnstone was distinguished. The confidential friend and biographer of Dr. Parr was himself a scholar of no ordinary acquirements, and his biographical memoirs of that celebrated man display sound judgment, refined taste, and classical learning. The elegance, as well as the depth of his scholarship, made him the delight as well as the ornament of society, and procured for him the friendship and esteem of many of the most learned and illustrious persons in the empire. He was a zealous and firm supporter of the charitable institutions of Birmingham, and ever ready to afford the most kind and liberal encouragement to merit and talent, especially among the junior members of his profession. His services for a long period as one of the physicians to the General Hospital, were always highly appreciated, and the pupils of that institution will long remember and deplore his loss. He was a warm, sincere, and generous friend, and exemplary in all the relations of private life. Dr. John Johnstone was educated at Merton College, Oxford, was a magistrate for the counties of Warwick and Worcester, a Fellow of the Royal College of Physicians, and of the Royal Society.

HUGH LEY, M.D.

On the 24th January, Hugh Ley, M.D. Lecturer on Midwifery at St. Bartholomew's Hospital, in the forty-seventh year of his age. Dr. Ley was the son of a physician and was born at Abingdon, in Berkshire, in the year 1790. He studied first in London, and then at Edinburgh, where he graduated in 1813, his thesis being "*De natura intima phthiseos pulmonalis.*" Shortly after settling in London, he was elected physician to the Westminster Lying-in Hospital. Subsequently to this he became associated with Dr. Merriman, in giving lectures on midwifery and the diseases of women and children at the Middlesex Hospital, and was appointed assistant physician accoucheur to that institution; and, on Dr. Merriman's resignation, he was unanimously elected physician in his stead. He was appointed to the obstetric chair at St. Bartholomew's in the autumn of 1835. He died of an affection of the heart, consequent on acute rheumatism.

Dr. Ley was the author of several valuable papers in the *Medical Gazette*. His only separate publication is the "*Essay on Laryngismus Stridulus,*" of which we gave a very full account in the third number of this journal.

Dr. Ley's professional character (as is truly stated by Mr. Earle,) was deservedly high, and without blemish; his conduct and sentiments on all subjects were those of a gentleman. [*Abridged from Mr. Earle's Speech at the Medico-Chirurgical Society on resigning the Presidency, February 28th, 1837.*]

DR. MACNISH.

At Glasgow, on the 26th December, 1836, in the thirty-fifth year of his age. Dr. Macnish was a man of great talent, and the author of several works of much interest and value, the principal of which are "*The Anatomy of Drunkenness*" and "*The Philosophy of Sleep.*"

BOOKS RECEIVED FOR REVIEW.

ENGLISH.

1. A Treatise on Consumption; embracing an Enquiry into the Influence exerted upon it by Journeys, Voyages, and Change of Climate, &c. Adapted for general Readers. By Wm. Sweetser, M.D.—Boston, 1836. 8vo. pp. 254.

2. Anatomical, Pathological, and Therapeutic Researches upon the Disease known by the name of Gastro-Enterite, Putrid, Adynamic, Ataxic, or Typhoid Fever, &c. By P. C. A. Louis, M.D. &c. Translated from the French, by H. I. Bowditch, M.D.—Boston, 1836. Two Vols. 8vo. pp. 395, 462.

3. Elements of the Practice of Medicine. By R. Bright, M.D., and T. Addison, M.D., Lecturers on the Practice of Medicine at Guy's Hospital. Part I.—London, 1836. pp. 128. 4s.

4. An Elementary System of Physiology. Complete in one Volume. By John Bostock, M.D. F.R.S. &c. Third Edition, revised and corrected throughout.—London, 1836. 8vo. pp. 887. 20s.

5. Medical Essays. By J. Hungerford Sealy, M.D.E. A.B. T.C.D. No. I. Phthisis Pulmonalis, its History and Varieties, &c.—London, 1837. 12mo. pp. 82.

6. Lectures illustrative of certain local Nervous Affections. By Sir Benjamin Brodie, Bart. F.R.S., Serjeant Surgeon to the King, &c.—London, 1837. 8vo. pp. 88.

7. Digest of the Homœopathic Principles. By E. W. Williams, M.B. Cantab.—London, 1837. 12mo. 2s.

8. Critical Remarks on certain recently published Opinions concerning Life and Mind. By John Robertson, Surgeon, &c., Manchester.—London, 1836. 8vo.

9. Practical Observations on Nervous and Sympathetic Palpitation of the Heart, &c. By J. C. Williams, M.D., Physician to the Nottingham Dispensary, &c.—London, 1836. 8vo. pp. 130.

10. Sketch of the Comparative Anatomy of the Nervous System; with Remarks on its Development in the Human Embryo. By John Anderson, M.E.S.—London, 1837. 4to. pp. 63; with Plates. 8s.

11. A Practical Treatise on Diseases of the Skin, arranged with a view to their Constitutional Causes and Local Characters. By Samuel Plumbe, Surgeon, &c. Fourth Edition, considerably enlarged, and with additional Engravings. — London, 1837. 8vo. pp. 607. 21s.

12. A Clinical Treatise on the Endemic Fevers of the West Indies, intended as a Guide for the young Practitioners in those Countries. By W. J. Evans, Esq. M.R.C.S.—London, 1837. 8vo. pp. 309. 9s.

13. The Nature and Treatment of

Dropsy; considered especially in reference to the Diseases of the internal Organs of the Body which most commonly produce it. Parts I. and II. Anasarca and Ascites. To which is added an Appendix, containing a Translation of the Work of Dr. Geronimi, on Dropsy; from the original Italian. By E. J. SEYMOUR, M.D., Physician to St. George's Hospital.—London, 1837. 8vo. pp. 218. 6s.

14. An Extract from Professor Müller, on the Reflex Function of the Spinal Marrow.—Pp. 24. 8vo.

15. A Translation of the Pharmacopœia of the Royal College of Physicians of London, 1836. With Notes and Illustrations. By Richard Phillips, F.R.S. L. & E. &c.—London, 1837. 8vo. pp. 392. 10s. 6d.

16. An Essay on the Influence of Air and Soil as affecting Health, to which was adjudged the Prize offered by the Reverend Thomas Arnold, D.D. to the Students of the Royal School of Medicine at Birmingham. By Alex. Wright, Student.—Birmingham, 1836. 8vo. pp. 56.

17. An Address delivered to the Members of the Royal Medical Society [of Edinburgh], Dec. 16th, 1836. By John H. Bennett, President of the Society.—Edinburgh, 1837. 8vo. pp. 16.

18. Illustrations of the Elementary Forms of Disease. By R. Carswell, Professor of Pathological Anatomy in University College, London, &c. Fasciculus XI. Analogous Tissues.—Fol. 15s.

19. The Jamaica Physical Journal, No. III. and IV. for 1836. Edited by W. Arnold, M.D.—Kingston, 1836.

20. Observations upon the Construction and Use of the Respirator.—London, 1836. 8vo. pp. 12.

21. The Pharmacopœia Collegii Regalis Medicorum Londinensis, translated, with a Commentary, Chemical, Pharmaceutical, and Medicinal. By D. Spillan, M.D.—London, 1837. 12mo. pp. 308.

22. The Works of John Hunter, F.R.S.; with Notes. Edited by J. F. Palmer, Senior Surgeon of St. George's and St. James's Dispensary, &c. In four Volumes, 8vo., and a Volume of Plates in 4to. Vol. I.—London, 1835. 8vo. pp. 643. 17s. 6d.

23. Compendium of Lithotripsy. By Henry Belinaye, Esq.—London, 1837. 8vo. pp. 215. 8s.

24. Observations on the Arrangements connected with the Relief of the Sick Poor, in a Letter to Lord John Russell. By John Yelloly, M.D. F.L.S.—London, 1837. 8vo. pp. 43.

25. The Report of the Poor-Law Committee appointed by the Provincial Medical and Surgical Association. Second Edition,

with an Appendix.—London, 1837. 8vo. pp. 89. 2s. 6d.

26. A Literal Interlineal Translation of the first Four Books of Celsus de Medicina, with the "Ordo" and Text, &c. By Robert Venables, A.M. M.B. &c. Second Edition, greatly enlarged.—London, 1837. 8vo. pp. 303. 10s. 6d.

27. Conspectus Medicinæ Theoreticæ. Auctore Jacobo Gregory, M.D. &c. Pars prima.—London, 1837. 12mo. pp. 84.

28. Second Annual Report of the Poor-Law Commissioners for England and Wales.—London, 1836. 8vo. pp. 640. 6s.

29. Outlines of Human Physiology. By Herbert Mayo, F.R.S. &c. Fourth Edition.—London, 1837. 8vo. pp. 334. 18s.

30. Aretæus of the Causes and Signs of Acute and Chronic Disease. Translated from the Greek, by T. F. REYNOLDS, M.B. F.R.S. &c.—London, 1837. 8vo. pp. 157.

31. A Practical Essay on the History and Treatment of Beriberi. By Assistant Surgeon John Grant Malcomson, Madras Medical Establishment.—Madras, 1835. 8vo. pp. 343.

32. Observations on some Forms of Rheumatism prevailing in India. By Assistant Surgeon John Grant Malcomson, Madras Medical Establishment.—Madras, 1835. 8vo. pp. 98.

33. Practical Observations on the Venereal Disease, and on the Use of Mercury. By Abraham Colles, M.D., Surgeon of Steevens's Hospital, Dublin, &c.—London, 1837. 8vo. pp. 351. 9s.

34. Observations on the Surgical Pathology of the Larynx and Trachea, chiefly with a View to illustrate the Affections of those Organs which may require the Operation of Bronchotomy. By W. H. Porter, A.M., Professor of Surgery in the Royal College of Surgeons in Ireland, &c.—1837. 8vo. pp. 280. 8s.

35. Oration delivered before the Members of the Royal Medical Society of Edinburgh, at the celebration of their Centenary, Feb. 17, 1837. By W. B. Carpenter, senior President of the Society.—Edinburgh, 1837. 8vo. pp. 36.

36. First Principles of Surgery; being an Outline of Inflammation and its Effects. By G. T. Morgan, A.M., Lecturer on Surgery in Aberdeen.—London and Edinburgh, 1837. 8vo. pp. 210.

37. A Treatise on Painful and Nervous Diseases, and on a new Mode of Treatment for Diseases of the Eye and Ear. By A. Turnbull, M.D. Third Edition.—London, 1837. 8vo. 6s.

38. Memoranda for Young Practitioners in Midwifery. By Edward Rigby, M.D. &c.—London, 1837. 48mo. pp. 48. 1s.

39. Principles of Homœopathy. By P. Curie, M.D.—London, 1837. 8vo. pp. 190.

40. Medical Statistics; or, the Causes

and Effects of the Extension of Human Life. By J. F. Palmer, M.R.C.S. From the Dublin Review.—London, 1837. 8vo. pp. 16.

FOREIGN.

1. Quæstiones Anatomico-Physiologicæ de Corporibus Wolffianis. Diss. Inaug. Ernesto Dieffenbach, auctore.—Turici, 1836. 8vo. pp. 27.

2. Periodico de la Academia de Medicina de Megico. No. I.—V.—Megico, 1836. 8vo. pp. 160.

3. De Blepharoplastice. Diss. Inaug. Med. Auctore, E. O. Peters.—Lipsiæ, 1836. 4to. pp. 43.

4. Chirurgische Kupfertafeln. Von Dr. Robert Froriep. Heft 69-71.—Weimar, 1837. 4to.

5. Das Heimweh und der Selbstmord. Von J. H. G. Schlegel, M.D. II. Th.—Hildburghausen, 1835. 8vo. pp. 427.

6. Dissertatio de Methodo Endermatica. Auctore A. Abrensen, M.D.—Hauniæ, 1836. 8vo. pp. 267.

7. Commentatio de Delirio Tremente. Auctore O. C. Höegh-Guldberg, M.D.—Hauniæ, 1836. 8vo. pp. 293.

8. Dissertatio de Hydrocephalo Acuto. Auctore J. O. C. Sommerfeldt.—Hauniæ, 1836. 8vo. pp. 203.

9. De Febre Puerperali Maligna. Auctore S. J. Ballin.—Hauniæ, 1836. 8vo. pp. 94.

10. De Fungo Articulari, Dissertatio. Auctore, Michaelæ Djörup.—Hauniæ, 1836. 8vo. pp. 116.

11. De Vita et Opinionibus Theophrasti Paracelsi, Dissertatio. Auctore A. F. Bremer.—Hauniæ, 1836. 8vo. pp. 191.

12. Meditationes nonnullæ de Cephalotomia seu Perforatione Cranii. Auctore J. C. Müller.—Hauniæ, 1836. 8vo. pp. 151.

13. Tractatus de Connexu inter Nervum Vagum et Accessorium Willisii. Auctore, H. C. B. Bendz.—Hauniæ, 1836. 4to. pp. 60.

14. Zur Praxis der Geburtshülfe. Beobachtungen und Bemerkungen aus der Akademischen Entbindungsanstalt zu Göttingen während der beiden Jahre 1822 und 1832. Vom Dr. J. F. Oslander, Professor der Medicin zu Göttingen.—Hannover, 1837. 8vo. pp. 143.

15. Traité de la Consomption Pulmonaire, &c. Par James Clark, M.D. &c. Traduit de l'Anglais, par Henri Lebeau, M.D. &c.—Bruxelles, 1836. 8vo. pp. 388.

16. Beobachtungen auf dem gebiete der Pathologie und Pathologischen Anatomie, gesammelt von Dr. J. F. H. Albers, Prof. der Medizin an der Universität zu Bonn. Erster Theil.—Bonn, 1836. 8vo. pp. 204.

17. Annales, Françaises et étrangères, d'Anatomie et de Physiologie. No. I. Jan. 1837.—Paris. 8vo. pp. 80.

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